



stand why there should be any fear, or hope, as the case may be, that the supply of white labor in the South available for present training and future effective work in the mills of this section is "nearly exhausted." The white population of the Southern States is about 15,000,000, and it is not a violent assumption, we suppose, to say that one in thirty persons of that number could be "available" on demand for service in a cotton mill. That estimate alone allows half a million availables to meet the demands of the future, and if it is further assumed that the present number of 500 mills shall be doubled, and so increased to 1000 in the next few years, or next two decades, say, and that 300 operatives shall be employed by each mill—a very high average—there would still be 200,000 availables in excess of the supply.

In this connection should be recalled the statement of Mr. D. A. Tompkins of Charlotte, N. C., who speaks from accurate knowledge, that more than one million inhabitants of the South could be started to work in cotton factories without interfering with the work of raising the cotton crop and the necessary foodstuffs to supply the operatives; that all over the South the white youth pleads for profitable employment; that any working people of ordinary intelligence can be quickly trained to do the work of making ordinary coarse yarns and sheetings, and that so far there have been found plenty of persons in the South who make excellent operatives for factories turning out plainer goods. At the same time, Mr. Tompkins is a leader in the demand that the South should take steps to provide the education and training necessary in the manufacture of the finer goods.

Instead of encouraging the purposes latent in the expression of fear that the Southern labor supply may be short, everybody interested in the industrial life of the South should encourage those people who are able to work to go to work in factories, and at the same time should develop the public sentiment that will induce legislation providing the means whereby the force of trained operatives in the future may be equal to the demand.

#### The Southern Farm Magazine.

One of the most suggestive articles in the December number of the Southern Farm Magazine is by Samuel B. Woods, on the future of agriculture in Virginia. From the standpoint of practical experience and wide observation, Mr. Woods points out the reasons why Virginia has not held her own agriculturally, but takes a hopeful view of the situation, which may be controlled by the Virginia farmers. Hon. I. F. Culver, commissioner of agriculture of Alabama, discusses the better handling of cotton from the point of view of the cotton-grower. Other leading papers are by Mr. Richard H. Edmonds, setting forth the part to be played by the Southern press in Southern development; by Prof. Andrew M. Soule of the University of Tennessee, on the place of cowpea-vine hay in agricultural operations, and by D. Allen Willey, on the methods adopted by English farmers in road construction. Among the other topics discussed are the true education for the farmer, the prosperity of Southern banks dependent upon natural resources, the need of more flour mills, and the reasons why immigration has moved toward the South in recent years. The departments devoted to popular discussion of literary developments, to the family, both young and old, contain interesting articles of carefully-selected matter.

The Southern Farm Magazine is published by the Manufacturers' Record Publishing Co., Baltimore, Md. Price, \$1 a year.

## NOTES ON THE SOUTHERN IRON INDUSTRY.

### Changes That Have Taken Place During the Past Year Among the Mills and Furnaces, and the Situation as It Appears Today.

By Edward H. Sanborn.

#### II.—THE STEEL-MAKING ERA IN ALABAMA.

Alabama presents one of the most interesting situations to be found today in the iron industry of the United States. The developments that are now taking place in Alabama mark the most important stage in the progress of the iron industry in the South, as the era of steel-making is just beginning, and many suc-

ceeded of, and, in fact, the vast size of the plant required for a continuous process from ore to finished product in order to permit operations upon the most advantageous basis—all of this does not fit the conditions as they now exist in the South. For all practicable purposes the Bessemer process, both acid and basic, is



OPEN-HEARTH STEEL FURNACES OF THE ALABAMA STEEL & SHIPBUILDING CO., ENSLEY, ALA.

cessive stages in the diversification of the industry present themselves to view as incidents of the near future. In the minds of the majority of iron-makers and consumers the South has never received much serious consideration as a possible producer of steel in any form. The futile efforts to make Bessemer steel in Chattanooga twelve years ago, the subsequent failure of attempts to make basic Bessemer steel at the same place did not excite interest or cause surprise when success was not attained. In the belief of most of the onlookers, these attempts were foredoomed to failure. The Bessemer process never has been, nor is it now, available for making steel in the South. Even admitting the possibility of making pig-iron of Bessemer grade in the South—a condition that is not now recognized—the large investment required, the great supply of pig-iron required, the enormous output to be

not available south of the Ohio river today.

Half a dozen unsuccessful attempts to make open-hearth steel in the South have proved nothing beyond defects in plant, mistaken judgment and incapacity in management. Unlike the Bessemer process, the open-hearth is practically available at any point where fuel, scrap and pig-iron can be had, and where a market for the product is within reach. Open-hearth plants can be profitably operated in units that are small, compared with Bessemer works. This is abundantly proven by the large number of open-hearth plants that have been put into operation during the past five years. This, indeed, has been the most significant feature of the development of the iron and steel industry in recent years.

When the basic open-hearth process was first considered available in the United

States, even before a single furnace had been diverted to this purpose, its use in the South was strongly urged by more than one practical man who recognized the possibilities of the process in that section. There were good and sufficient reasons, technical, financial and legal, why no part of the Southern pig-iron product was converted at home; and now really for the first time are the conditions such as to encourage the belief that a very considerable product of basic open-hearth steel will come from the South at no remote day.

Beyond the small experimental Henderson furnace in Birmingham over ten years ago, and the brief career of the Fort Payne plant a few years later, no basic open-hearth steel was made in the South until the process began to be used regularly at the Birmingham Rolling Mills two years ago. The product of this small plant, although demonstrating the practicability of the idea, has not been sufficient to be any factor in the market. There have been innumerable projects for the building of great open-hearth plants in Alabama during the past four or five years, but all of them came to naught until the revival of the iron trade last year opened the way for the inauguration of an enterprise of this kind of magnitude and importance.

The beginning of the regular production of basic pig-iron in Alabama and the subsequent undertaking of a great basic open-hearth steel plant were, after all, purely accidental, according to President Baxter of the Tennessee Coal, Iron & Railroad Co. In a recent conversation with the writer Colonel Baxter said: "I was at the Alice furnaces one day with Mr. McCormack, our general manager, over two years ago, when I was handed a telegram from the Carnegie Steel Co., asking if we could make 25,000 tons of basic iron. I asked Mr. McCormack what he thought about it, and after talking the matter over we decided to make the attempt without saying a word to anybody, so that if we failed nobody would be the wiser. Mr. McCormack gave the necessary instructions to the furnace superintendent, and the next day one of the Alice furnaces went on basic iron, and we have been making it there ever since."

"After we had made and sold some 200,000 tons of basic pig-iron to the best makers of open-hearth steel in the country, we began to think that it was about time for us to use that same iron here in Birmingham in the manufacture of steel. We argued that if we could make basic iron good enough for the best open-hearth plants in the North, the same iron would be all right for us to convert into steel in a plant of our own in Alabama. We therefore set about getting our friends together on the project, and the open-hearth steel plant you see at Ensley is the result."

The open-hearth steel plant is located at Ensley, about eight miles from Birmingham, and is owned by the Alabama Steel & Shipbuilding Co., which is virtually the Tennessee Coal, Iron & Railroad Co., exercising the privileges of an old charter of rather broad and liberal provisions. The plant, now practically complete, is the largest open-hearth steel works in the United States with the single exception of the great Homestead works of the Carnegie Steel Co., Limited. Apart from the interest that attaches to this plant because it is the first of importance in the South, it is worthy of attention on account of its magnitude and its technical features.

The plant embraces ten Wellman tilting open-hearth furnaces, each of fifty tons capacity. These are constructed in a single block, and are housed in a steel building 736 feet long by 80 feet wide. Par-

allel with the furnaces stands a row of thirty-two Wellman gas producers. A double track is carried over the producers and coal cars are unloaded into pockets, from which chutes lead to each producer. The trestle and pockets are of steel. A track runs underground directly beneath

Mesta Machinery Co. of Pittsburg, the auxiliary tables by the Lloyd-Booth Co. of Youngstown, Ohio, and the Cleveland Punch & Shear Co., and the shears by the Frank-Kneeland Machinery Co. of Pittsburg. Steam, electric, compressed air and hydraulic power are liberally used

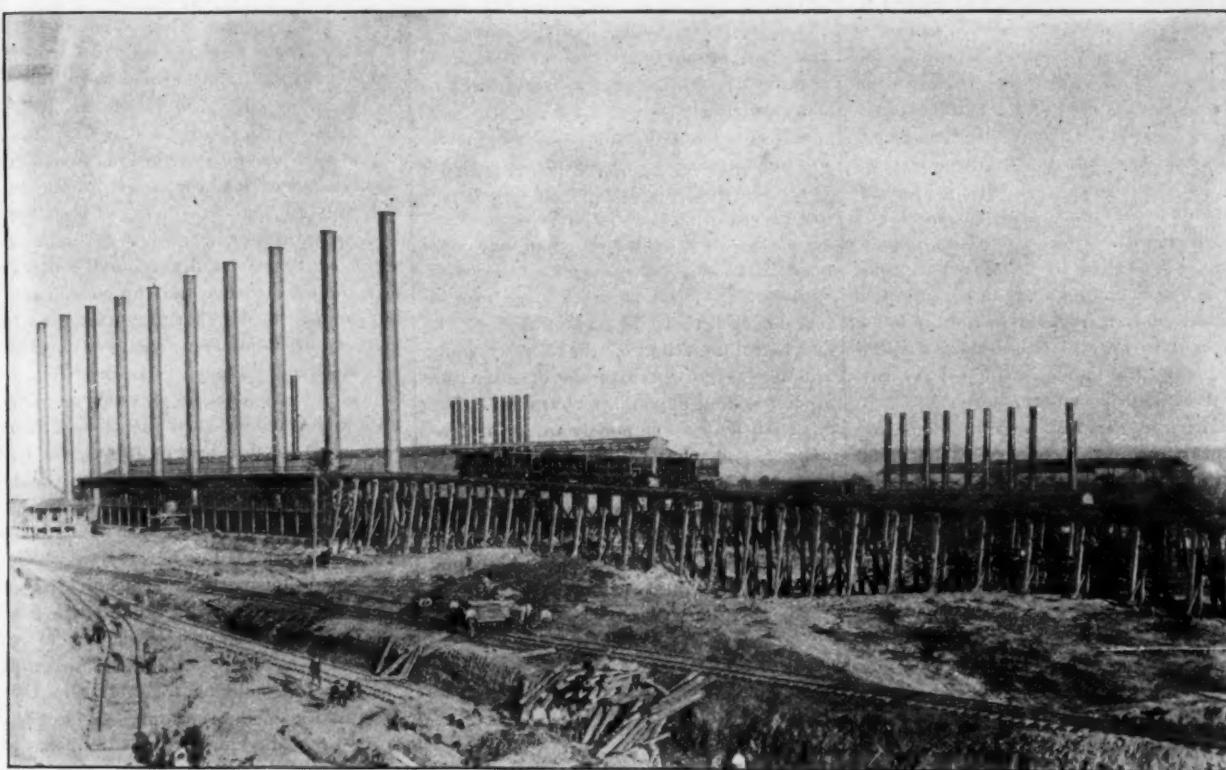
McCaffrey of Pittsburg. The open-hearth furnace-house was built by the Keystone Bridge Works of Pittsburg; the furnace stacks by the Means & Fulton Iron Works of Birmingham, Ala.; the furnace ironwork by the Riter-Conley Co. of Pittsburg; the producers by the Birmingham

perhaps the only handling of any material by manual labor in the plant. Ore and limestone are dropped from cars into pockets, and thence into the charging boxes. Neither coal nor ashes require handling at the producers, the feeding of the one and the removal of the other being effected by gravity. The entire plant shows study in design and arrangement and thoroughness in construction, verifying the assertion of President Baxter that "we did not limit our engineers as to money, but told them to go ahead and build the best plant in every respect that could be built."

It is understood that the original calculation of about \$1,000,000 as the cost of the plant has grown to \$1,500,000, but the management claims that the plant could not be duplicated under prices and conditions now existing for less than \$2,500,000.

It was the purpose of the company to erect a finishing mill as part of the plant, to be equipped for rolling rails, light structural shapes and small billets. Plans for this mill were prepared, but owing to the difficulties encountered in securing the required machinery and equipment it was thought best to postpone the undertaking. This part of the project, therefore, is held in abeyance for the time being, but doubtless it will be carried out as soon as the open-hearth steel gets well into operation and the machinery market is less crowded with orders.

A very important adjunct to the steel works, although an entirely separate and independent enterprise, is the mill of the Alabama Steel & Wire Co. This company has twenty acres of land immediately adjoining the steel plant, and upon this tract has been built a very complete and thoroughly modern plant for the rolling of wire rods, the drawing of wire and the manufacture of wire nails and barbed wire. The buildings are complete and most of the machinery is in place, but the installation has been much delayed by the failure of contractors to deliver ma-



GENERAL VIEW OF OPEN-HEARTH STEEL PLANT AND BLOOMING MILL OF ALABAMA STEEL & SHIPBUILDING CO. AT ENSLEY, ALA. THE ROW OF STACKS AT THE LEFT ARE PART OF THE WORKS OF THE ALABAMA STEEL & WIRE CO.

the producers, so that the ashes fall into cars without any handling.

The furnaces are served by two Wellman charging machines traveling the entire length of the building, while another track carries the charging boxes on cars in front of the machines. It is worth noting that the tracks throughout the works, with the exception of that on which the ingot cars run, are all standard gauge, which adds much to the convenience of handling material from the neighboring blast furnaces and from the stockyards. The tracks on the charging floor are laid flush with the floor, a minor feature, but one that will be appreciated. The reversing valves are on the charging floor, convenient of access and easy to handle.

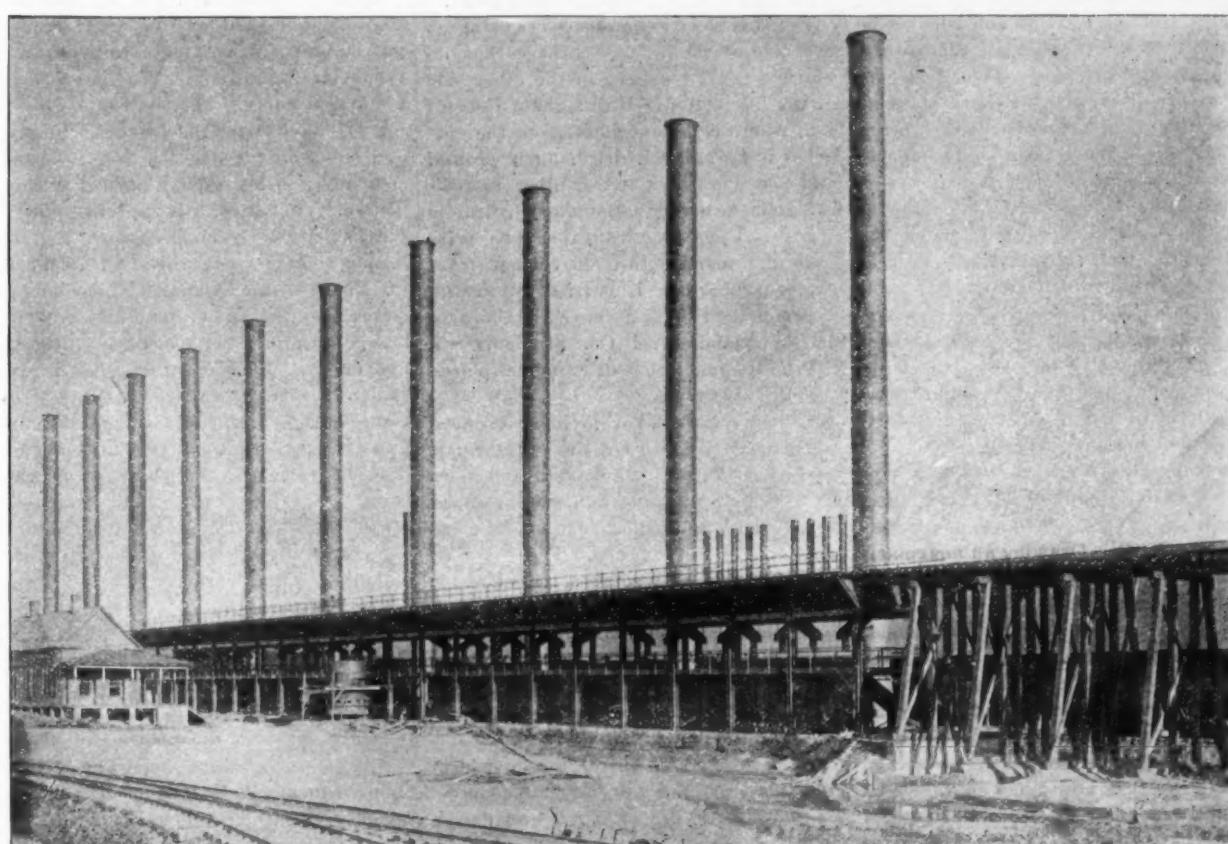
The furnaces will be poured into ladles carried by traveling electric crane, the casting floor being served by two of forty tons capacity each, one Brown Hoisting & Conveying Machine Co. and one Case Manufacturing Co. Ingots will be poured on top, cast on cars. The ingots will be stripped just outside the furnace-house by an upright stripper, hydraulically operated, and then returned to the blooming mill and charged into the heating furnaces by a Wellman machine.

The blooming stands parallel with the furnaces, and only a few steps distant. The mill, forty-four inches in diameter, was built by the Frank-Kneeland Machinery Co. of Pittsburg, and will be driven by a reversing Allis engine 36x48 inches. A battery of 3000 horse-power of Cahall boilers in units of 300 horse-power has been installed, 1500 horse-power are yet to come and space is ready for as much more. For cutting billets and slabs there are two hydraulic shears. There is one with three cylinders, any one of which can be used alone, cutting up to 10x30 inches. This will be used to cut long lengths of billet into two parts, and a duplex 12-inch shear will cut the billets to shipping length.

The blooming mill is served by a 30-ton Wellman-Seaver electric traveling crane. The blooming-mill table was built by the

through the plant. The electric-power plant consists of two 225-kilowatt Westinghouse generators, each of which is driven by a 20x36 Buckeye engine. Electricity is used chiefly for the cranes and charging machines. The furnace doors and reversing valves are worked by compressed air supplied at 100 pounds pres-

Machine & Foundry Co.; the blooming-mill building by the Shiffler Bridge Co. of Pittsburg, and the open-hearth charging floor, platforms, etc., by the Variety Iron Works of Cleveland. The entire plant was planned and its construction was supervised by the Wellman-Seaver Engineering Co. of Cleveland. W. N.



GAS PRODUCERS OF OPEN-HEARTH STEEL PLANT OF ALABAMA STEEL & SHIPBUILDING CO., ENSLEY, ALA.

sure by two Ingersoll-Sergeant compressors. The hydraulic service for tilting the furnaces, for the ingot stripper and for the slab and billet shears is supplied by two Wilson-Snyder pumps 25x42 and 10x36. The entire piping contract, steam, water and air, was handled by Atwood &

Sawyer, formerly with the Bellaire Steel Co., Bellaire, Ohio, is general superintendent.

The economical and convenient handling of all material and products is a conspicuous feature of the plant. The loading of scrap into the charging boxes is

chinery and material. The plant will be ready for operation probably soon after the starting of the steel works.

The two plants are so near together that billets will be taken from the cutting-up shears in the blooming mill and carried by a conveyor direct to the heating furnaces

of the roughing train in the rod mill, thus avoiding all expense for handling or freight. The rod mill contains a Garrett mill, and is in every respect a modern plant, designed with view to output and economy. The nail machines were built from original designs by the engineers of the mill, and, in fact, nearly everything about the plant has been designed to meet the requirements of this particular case. The wire-drawing benches and most of the rough machinery and castings were made on the spot, a foundry and machine shop having been installed for this and subsequent work.

The plant is a large one, covering a large part of the 20-acre tract, and embraces everything, from the billets to the nail kegs. The capacity may be measured by the fact that the mill will take from the Alabama Steel & Shipbuilding Co. 300 tons of billets daily, with the privilege of taking double this quantity. The products will be rods, plain wire, barbed wire and wire nails. There will be no specialties, only staple sizes of the articles mentioned, galvanized products included.

The personnel of the Alabama Steel & Wire Co. is rather interesting, in view of the events of the past year, which have brought the wire-rod, wire and wire-nail interests of the country practically under control of a single company. The president is E. T. Schuler, formerly treasurer of the American Steel & Wire Co.; the treasurer is George H. Schuler, formerly manager of the Cleveland works of the American Steel & Wire Co.; the general manager is C. E. Robinson, formerly manager of the Joliet mills of the American Steel & Wire Co.

Although the proprietors of the Alabama Steel & Wire Co. were formerly so closely identified with the management of the American Steel & Wire Co., the new company is not designed to be a thorn in the flesh of the combination. The projectors of the Alabama company wisely recognize that more is to be gained by a policy of harmony than by aggressive competition, and they make it very clear that the starting of their mill will not be signalized by a cut of 50 per cent. in the prices of wire or nails. They have endeavored to divert all attention from their undertaking in order to avoid being forced publicly into a false position by erroneous statements about their purposes.

Apart from all this, it is interesting to note the exceptionally favorable conditions under which this plant is being created. With billets delivered in the mill, with abundance of cheap fuel, with labor at low wages and with an entirely new plant of high efficiency, constructed at minimum cost, the company ought to be able to get out of the wire and nail business all that there is in it.

The little town of Ensley, where all this activity centers, presents a remarkable object-lesson in the economies of production in the South. Drawing an imaginary line little more than a mile long from northeast to southwest, you have at one end slopes Nos. 4 and 5 of the Pratt mines of the Tennessee Coal, Iron & Railroad Co., and at the other end is slope No. 1 of the same mines. At each of these coal is mined and coke is made and supplied to the four Ensley furnaces of the company, to which a fifth is now being added. The grouping of plants along this imaginary line is about as follows:

Slope No. 3.

Coke ovens.

Ensley blast furnaces (five).

Semet-Solvay coke ovens.

Birmingham Cement Co.

Alabama Steel & Shipbuilding Co.

Alabama Steel & Wire Co.

Coke ovens.

Slopes Nos. 4 and 5.

Iron ore is brought from mines in Red

mountain, six miles across the plain. Limestone comes half that distance. From the beehive coke ovens to the Ensley furnaces the distance is about 2500 feet. Immediately beside the furnaces is the Semet-Solvay plant of 120 retort ovens, in two blocks of sixty each. The coke from each oven is pushed directly into an iron car, quenched and hauled up an incline by cable into the stockhouse of the furnace, with neither handling nor freight. The output of these ovens amounts to about 450 tons of coke per day. The ovens are heated by gas generated from the coal, and as there is more gas than is required for this, it is piped to the boiler plant of the furnaces and used there whenever needed to supplement the gas taken from the furnace tops. The tar and ammoniacal liquor distilled from the coal are recovered, the tar being subjected to several subsequent distillations, while the liquor is shipped for further treatment elsewhere.

This plant, the first installation of by-product ovens in this country, except upon an experimental scale, is worthy of more extended mention than this occasion will permit. Despite the extensive use of retort coke abroad, furnacemen in the United States still retain their prejudices against this method of making their fuel. Three years of experience with the product of the Semet-Solvay ovens at Ensley might be expected to establish some facts relative to the value of the fuel, but one finds considerable difference of opinion here as elsewhere. A sifting of these opinions seems to establish the fact that retort ovens will make good furnace coke, and whether they yield good or poor coke depends more upon management than upon the principles involved in the process. A good proportion of satisfactory coke is made in the retort ovens at Ensley, but that the Tennessee Coal, Iron & Railroad Co. is not yet ready to adopt this method for general use may be inferred somewhat conclusively from the fact that the company is now building 300 beehive ovens within sight of the Semet-Solvay plant.

The saving of by-products in coking on one side of the Ensley furnaces has its interesting counterpart on the other side in the plant of the Birmingham Cement Co., where slag taken hot from the furnaces is granulated, dried, finely ground and mixed with lime and other ingredients to make a very satisfactory hydraulic cement. Upon practically the same principle the manufacture of cement from blast-furnace slag is carried on at the works of the Illinois Steel Co. in Chicago, the Maryland Steel Co. at Sparrow's Point, Md., and at one or two other places in this country.

Following the coke ovens, blast furnaces and cement mills come the open-hearth steel plant and blooming mill, and then the wire-rod, wire and nail works, slopes Nos. 4 and 5, with their coke ovens, coming at the end of the line. There is here a combination of resources, attended by economies in manufacture, such as cannot be duplicated in this country, if indeed in any part of the world. A radius of three miles will embrace all the processes, from the ore and coal to the keg of nails or reel of wire. It seems somewhat singular to find in Alabama—in the South, which many are not willing even yet to concede a position in the iron industry—advanced ideas in manufacture which have hardly found acceptance as yet among the Northern ironmasters, with their generations of accumulated experience.

A study, though even a hasty one, of the Birmingham district, and Ensley in particular, is full of interest just at the present time, for the developments now in progress mean the beginning of a new era in the Southern iron industry, in the diversification of product and the establishment

of a variety of new and interdependent industries. The first fruit of the open-hearth steel plant is a rod, wire and nail mill. A finishing mill will follow, and other industries will multiply in number and diversity.

It is hasty to claim for the South a position of pre-eminence in the manufacture of open-hearth steel because a single large plant has been built, but the next five years will probably show progress in steel-making as striking and as significant as has been the growth of the pig-iron output. The developments at Ensley virtually mean the emergence of the South from the pig-iron period into an era of diversified products in iron and steel. Even before a pound of steel has been made at Ensley there is talk of the duplication of the plant by other large iron interests, and there is no doubt that the successful starting of the Ensley plant will mean the organization of numerous other projects of similar character. Birmingham has no monopoly of natural resources, and what has been done there in iron could be done under nearly as favorable conditions in a dozen other localities. The possibilities of open-hearth steel-making are fairly demonstrated in Alabama; the growth of the industry is likely to be steady, if not rapid.

#### GETTING OUT THE ORE.

##### Industrial Development At and Near Anniston.

[Special Cor. Manufacturers' Record.]  
Anniston, Ala., November 20.

The recently-organized Anniston Brown Ore Co. has purchased the Gladden farm of 1640 acres in Alexandria valley, nine miles northwest of Anniston, paying \$20,000 therefor. This property, while valuable for farming purposes, contains extensive beds of rich brown-hematite iron ore. It is situated near the Louisville & Nashville Railroad, and the purchasers will erect a 300-ton washer and mine and ship ore to nearby furnaces.

Ironaton furnace No. 1 of the Alabama Consolidated Coal & Iron Co., recently put in blast, is working beautifully and producing from 160 to 175 tons of fine grade iron a day. The work of overhauling and improving the Gadsden furnace and Ironaton furnace No. 2 of the same company is being rapidly pushed to completion. The latter, it is expected, will be put in blast early in December, and the former shortly afterwards. President T. G. Bush of the Alabama Consolidated states that the rumor that his company is negotiating for the Woodstock furnaces and ore and limestone properties is unfounded. Mr. Douglass H. Gordon of Baltimore, president of the International Trust Co., which financed the Alabama Consolidated, spent the past week in Alabama inspecting the latter company's properties. He expressed himself as being very favorably impressed with what he had seen and learned.

The Southern Car & Foundry Co. received an order Saturday from the Pressed Steel Car Co. of Pittsburgh for the forgings for 1000 cars. Part of the work will be done in the rolling-mill department, part in the blacksmith shops and part in the machine shops, and several hundred men will be employed on it for several weeks. The company has many smaller orders on hand, and the big plant is very busy. Some of the departments are working night and day.

T. C. Williams & Co. are mining iron ore in large quantities on the McClellan place, in Choccolocco valley, eight miles southeast of Anniston, and shipping to various furnaces.

The work of doubling the capacity of the E. L. Tyler & Co. soil-pipe works, recently purchased by the Central Foundry

Co., has commenced. Several carloads of additional equipment have already arrived.

#### STOCKS BEING DEPLETED.

##### The Situation at Birmingham Becoming Interesting.

[Special Cor. Manufacturers' Record.]  
Birmingham, Ala., November 21.

There was a larger inquiry for iron the past week, and transactions were limited, as usual, by the inability of furnaces to meet the requirements of buyers. This is the season of the year when buyers are usually preparing for stock-taking and closing the year's business. Fresh business is, therefore, usually very light. So when an active inquiry is on the market it is strong evidence that buyer's necessities compel it. One large inquiry was for delivery to commence this year. That was declined. Then it was renewed, delivery to commence in January. When that was declined, then the best delivery was asked for first half of 1900. The correspondence was finally closed by the assertion of the seller that they could not accept further orders for first half of 1900 delivery. The leading interest is accepting no new business for first half of 1900 except for soft grades. Some silver gray sold for \$20.50 the past week, which was fifty cents over previous sales. This grade cuts so small a figure in quotations that the advance is without significance. There are many importunate requests to anticipate delivery on forward purchases by spot or prompt shipments.

Buyers to whom iron is not due until February are asking this favor. That ought to be the best kind of evidence that stocks are being fast depleted beyond anticipation in melters' hands. To show the utter inability of sellers to grant these requests, your correspondent was shown the daily report of Saturday of several furnaces. At one where two stacks are in blast the stock was fifty-seven tons. At another with four stacks in blast the stock was 200 tons. At another with five stacks it was 500 tons. One must consider that these stocks represent all the various grades, eight or nine in number. A very little figuring will show how small a quantity of any one grade can be fished out for shipment, and how utterly impossible it is to anticipate forward delivery with spot shipments. One large interest was feeling the market last week for 25,000 tons, but could get no proposition looking to delivery earlier than last half of 1900. Another buyer of basic iron was on the market for 6000 tons at a bid of \$17.50, but failed to obtain it. That grade is closely sold up. As we approach nearer and nearer the period for active deliveries we find two things growing in prominence—first, that buyers have not filled their requirements up to their necessities, and secondly, that sellers are finding out in many cases that they have sold too freely for comfort for forward delivery.

The buyers are clamoring now and the sellers will follow with protestations later on. Each will have an opportunity to ask the other "what are you going to do about it?"

The condition of the export trade excites increasing interest. The foreign markets have been gradually stiffening, until in some instances the margin against business is only fifty cents per ton, and ranging from that figure to \$1.25 per ton. If, as pessimists declare, there must soon be a recession in prices, they can't go far. They will surely find a stopping-place when they reach the point where the foreign trade can buy. Consider that our domestic prices have cut off this trade practically for long months, and it is only a reasonable prediction to say that they will have very large holes in their stocks

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to fill up with American iron. So that the export trade will prove in the future, as it has in the past, to be the safety-valve of the American pig-iron market. J. M. K.

#### Eastern Iron Markets.

[Special Cor. Manufacturers' Record.]

Philadelphia, Pa., November 22.

The past week in the iron trade has been the dullest for the past six or eight months. Very little business has been done. Buyers suddenly withdrew. Consumptive requirements are on the increase, comparing this month to last, but there is a hesitancy displayed by buyers of every sort of iron and steel, from crude to finished, to rushing any farther after higher prices. Two or three significant things have happened—one has been that several large enterprises have been obliged to shut down for want of raw material; another is that quite a number of enterprises have been sidetracked because of high prices of iron and steel. Consulting engineers of this city and New York have informed your correspondent that their advice in several instances has been to go slowly and take no more chances on advancing prices.

No. 1 foundry rules at \$25 to \$25.50; gray forge is \$20 to \$21; Bessemer and basic are unchanged; muck bars are strong at \$31. Steel billets would be purchased in 5000 to 1000-ton lots within thirty days if the views of intending buyers were met by makers. The latest intimation is that there will be a drop in steel billets, but this news comes from buyers. Agents of makers are prepared to demonstrate its impossibility.

All lines of finished material are very strong, and the tendency is upward simply because manufacturers are unwilling to extend their engagements, and are, therefore, able to quote prices at what they please. There is scarcely a shop in the country but what could safely increase its purchases or extend its contracts. There is, however, less disposition to do this because of the big talk about the enlargement of capacity. The sidetracking of a number of new enterprises because of high prices is having its effect. Steel rails are ordinarily quoted at \$37; structural material at 2.40 to 2.80; plates, 3 to 3.50. There is a strong tendency to a more conservative course of action. But if the opinions of Andrew Carnegie and other authorities in the steel industry are correct, there will be a revival of demand early in the coming year which will destroy all pessimistic theories as to any possible reaction.

#### The Iron and Metal Trades.

[Special to Manufacturers' Record.]

New York, N. Y., November 23.

In its review for the week the Iron Age says:

"After a long period of the most intense activity the iron markets have quieted down considerably. This is usual at this season of the year; in fact, it has come later than we have been accustomed to. While this is a matter of annual recurrence, this year the special circumstance is added that in the great majority of the different branches the product is engaged for many months to come, running in some lines far into the second half of the next year. Many producers are still so far behind in their deliveries that a quieter spell is welcomed as a relief. In some branches it will require intense activity during the whole of the usually dull period to work off the long-delayed orders and the contracts at hand for future delivery."

"In the raw materials the situation has changed little. The coke production for next year has been fully contracted for, and apparently the requirements have not

been entirely covered, since a sharp advance over recent contract prices has been realized. The ore situation is unchanged, the association not having opened its books as yet for the next season.

"Bessemer pig in the Central West remains very firm, but only a moderate business has been done. There are indications from the fact that inquiries are in the market from large consuming interests, that the present scarcity will continue during all of the first half of next year. Western firms have bought round lots in Eastern territory to cover sales made earlier in the year of Western pig for Eastern delivery, thus releasing it for the Western market.

"Steel is very quiet, and \$35 to \$36 for billets in the Central West, for delivery during the first half of 1900, is the prevailing quotation. There has been a readjustment, too, in the prices of basic open-hearth billets. It does not appear that buyers are taking hold very vigorously at these prices, which represent a readjustment after the high prices for small lots for quick delivery which necessarily were the basis of all recent quotations.

"The market for muck bars has continued easy. This is principally due to the fact that leading buyers of skelp are not placing orders for skelp, so that the mills are seeking relief by marketing their iron in the form of muck bar.

"In nearly the whole line of finished iron and steel the markets are quiet, and few orders are being entered. In some branches, like in structural material, this is causing no pressure whatever. In others, however, like in plates, sheets, bars, skelp, etc., some mills are seeking business and are trying to encourage sales by concessions from the recent prices for prompt delivery.

"What quantities are being taken by the railroad interests is well illustrated by the fact that one mill recently received an order for 33,000 car axles, which represents about 8500 tons.

"The report is current that a lot of 20,000 tons of steel rails has been sold for shipment to Japan.

"The only recent movement in the matter of imports has been that in old material. Some lots of foreign old rails have been marketed."

#### One View of the Iron Outlook.

Messrs. Rogers, Brown & Co. send out a circular in which they say:

"It is generally supposed that when prices of iron are not going up they must be going down. It has worked that way for several years, but do not be deceived. The country is full of consumers who have had little faith in so-called high prices, and they are waiting for the turn. In the meantime, the largest melters are steadily placing contracts for pig-iron to be delivered through the first half of 1900, and the output of furnace after furnace is being taken from the market.

"The danger is that the doubters will realize the true condition nearly simultaneously, and their rush to cover will jump prices again. Our advice is to buy now. If you do not, lay this away for a few months, and then see if you would not have profited by acting on it."

#### Notes from Bristol.

[Special Cor. Manufacturers' Record.]

Bristol, Tenn.-Va., November 22.

Work will begin November 27 on the Columbian Paper Co.'s pulp-mill plant here. The main building will vary in width from 100 to 162 feet, and will be 474 feet long. The digester-house will be 82x77 feet, seventy-five feet high, and will contain eight digesting machines. One thousand tons each of soda and lime will

be consumed per month, and sixty cords of wood per day. The machinery will cost about \$250,000. The buildings will cost \$75,000. Samuel Bruner, Bristol, will superintend this work.

Charles A. Schieren of Brooklyn, proprietor of "Dixie" Tannery, this city, will add to this plant a heavy belting manufacturing department.

The grading of the extension of the Virginia & Southwestern Railway from Elizabethhton to Mountain City, thirty-five miles, will be finished by January 1, and the road is expected to be equipped and in operation by February. Steel bridges from the Baltimore Structural Co. will span the streams over which this road will run.

#### Exhibited for Export.

The Standard Tool Co. of Cleveland, Ohio, has a large exhibit of its products on display at the Philadelphia Export Exposition. It is located in the south pavilion of the main building, and is among the most striking and attractive of the exhibits in this line. The booth or glass case which encloses the tools is of mahogany, and its four pillars are carved to imitate twist drills, the leading product of this firm. Inside, the tools, which are of great variety, are illuminated by electric light. Finely-polished twist drills, reamers and other products of the company are shown in all sizes, from the most minute instruments used in the metal-working trades to those many inches in diameter. An attractive feature of the exhibit is the name, "The Standard Tool Co., Cleveland, U. S. A.", worked out in small tools. The Standard twist drills enjoy a very high reputation in all parts of this country, and they are also well known abroad, the present exhibit at the Export Exposition indicating the company's interest in the foreign trade.

The Standard Tool Co. was incorporated under the laws of Ohio in May, 1882. The first two years were spent in manufacturing an article of so superior a value that the products of the company at once won a place for themselves, and the quality has been upheld ever since.

At first only a few kinds of twist drills were made by the Standard Company, but its product has gained much variety until it now includes all sizes and styles of reamers, milling cutters and other small tools too numerous to designate separately except in the firm's catalogues, which are sent freely upon request. Special attention is given to the manufacture of spring cotters, flat-spring and riveted keys for railway-car work and allied lines. The factory at Cleveland is large, and it has a complete modern equipment.

For the convenience of the Eastern trade, in order to meet the demand promptly, a full line of finished goods is carried at the company's New York branch, which is situated at 94 Reade street. The company maintains foreign agencies in London, Paris, Leipzig, Ronsdorf (Germany), St. Petersburg and Yokohama. The company's line of products as they are exhibited at the Export Exposition will attract the notice of any visitor whose technical knowledge is such as to enable him to appreciate their superior worth.

A bill will be introduced in the next Virginia legislature providing for a State exposition in 1901.

It would pay every town and every property-owner and agent in the South to advertise in the *Southern Farm Magazine*. It is published by the Manufacturers' Record Publishing Co., Baltimore.

#### RAILROAD NEWS.

[A complete record of all new railroad building in the South will be found in the Construction Department.]

#### NEW DEPOTS IN THE SOUTH.

**Generous Policy Pursued by the Railroad Companies in These Improvements.**

The liberal policy which has been followed by the railway companies of the South is especially shown in the arrangements made for the comfort of the traveling public. While the best rolling stock that money could procure has been placed upon the principal systems and many of the lines have been entirely rebuilt with heavier rails and improved roadbeds, the appropriations for depots for passengers as well as freight have been generous in the extreme. Most of the larger cities of the South now have certain stations which will compare favorably with those in any part of the country. They have been planned and erected with the view of not only accommodating the present, but future increase in passenger business. The best materials have been selected, the most noted architects retained and expert workmen employed. During the last three years the construction of such buildings has been a notable feature in the progress of the Southern States. This broad policy has been voluntary on the part of the railroad companies. Only in a few instances have they been obliged to construct new stations through the order of railroad commissions in the various States, and many a community has received the gift of a new and attractive depot which was entirely unsolicited. It is practically a gift, for an outlay of this kind seldom repays a railroad company in increase of traffic. It is not necessary to have a new depot to secure the business of a town where the railroad has no competition, but there are many instances in the South where the company has literally taken money out of its treasury and presented it to the citizens in the form of a new station.

The columns of the Manufacturers' Record indicate how extensive has been the construction of new depots. All of the Southern States have been included in the list of such improvements, showing that the feeling of liberality to patrons has not been confined to a few corporations, but include the great majority. Within the last three years the city of Montgomery, Ala., has had nearly \$500,000 expended in new depots and terminals. The union station constructed by the Louisville & Nashville Company alone represented an outlay of \$350,000, and is one of the finest in the South, while the Western Railway of Alabama improved its facilities to the extent of \$100,000. The Baltimore & Ohio, in completing Mount Royal Station and remodeling Camden Station at Baltimore, spent fully \$300,000 in these improvements alone. At Fort Worth, Texas, a union depot has been erected at a cost of \$200,000 which would be a credit to any community in the United States. Jacksonville, Fla., has also been benefited to the extent of \$75,000 in the construction of a passenger and freight depot, which is utilized by the principal lines entering the city.

The Southern Railway Co. has been especially noticeable in its appropriations for such work. The plan of rehabilitation has extended to its station buildings, and many have either been torn down and replaced by new structures or have been remodeled. Contracts have been let by this company for depots at Greensboro and Charlotte, N. C., each of which cost nearly \$50,000; also at Danville, Va., and Knoxville, Tenn. The company intends

building a depot at Richmond, which will be 75x170 feet in dimensions with a tower 100 feet high. This depot has already been mentioned in the Manufacturers' Record. It will be constructed practically fireproof, and the plans show a structure which will be a credit to the city, and provided with all of the latest ideas embodied in such edifices. The smaller contracts of the Southern include fifteen stations, representing an outlay of nearly \$50,000. It also expended about \$5000 in improving its station at Aiken, S. C.

In addition to the improvements it has made at Montgomery, the Louisville & Nashville has let contracts for a union station at Nashville, Tenn., which will represent an expenditure of fully \$1,000,000, including the various terminals. It has also contracted for a \$10,000 station at Middlesborough, Ky., and may be interested in the union depot which it is proposed to erect at Atlanta, Ga. A number of new depots have been erected by the Louisville & Nashville at smaller towns along its lines.

The Chesapeake & Ohio, in connection with the Seaboard Air Line, has begun work upon the union depot and terminals at Richmond, Va., which have already been described in the Manufacturers' Record, and will cost fully \$2,000,000. The terminals completed will be among the finest, not only in this country, but in the world. Two other very large contracts which will probably be let within the next year are the union depot at Atlanta, Ga., estimated to cost \$500,000, and the improvements proposed by the Pennsylvania Railroad at Washington to cost \$3,000,000, including a steel bridge over the Potomac river and elevated tracks within the city limits. The Atlanta station will be used by the larger systems now entering that city, while it is calculated that the Southern and the Atlantic Coast Line and the Chesapeake & Ohio and the Seaboard Air Line will enter the new depot which is planned by the Pennsylvania, in addition to the trains of the latter company. The Choctaw & Memphis Railway Co. is about to construct a handsome station at Little Rock, Ark., as its line is nearly completed to that city. The Missouri, Kansas & Texas Railroad Co. is selecting a site for a depot which may be utilized by the railroads entering Waco, Texas. The estimated cost of this improvement is \$50,000. The Southern Company is understood to be considering an elaborate depot at Charleston, S. C., and has had plans prepared for a depot at Rome, Ga., to cost \$50,000. New buildings are projected by the railway companies for Bryan, Texas, Waycross, Ga., Durham, N. C., Troy, Ala., Valdosta, Ga., Americus, Ga., Opelika, Ala., and Summerville, S. C.

The building of the Richmond, Petersburg & Carolina division of the Seaboard Air Line necessitates a new depot at Petersburg, Va., which will cost about \$35,000, also fifteen smaller stations at different points between Richmond and Ridgeway, N. C. The same company has also planned a depot at Columbia, S. C., and purchased a site.

A union station at Mobile, Ala., is also under consideration.

A consultation has been held at San Antonio, Texas, with the view of constructing an elaborate union depot in that city. The Missouri, Kansas & Texas Railroad Co. has taken a special interest in the matter, and it is understood that its architect has been instructed to prepare plans. A union depot has also been projected for Savannah, Ga., by the various railroad lines entering the city. It is understood that if the city council will grant the companies certain privileges one of the finest in the country will be erected.

#### HOW SOUTHERN ROADS "GROW."

##### **The Arkansas, Louisiana & Southern Extended from Five Miles to Eighty Miles in Two Years.**

The Arkansas, Louisiana & Southern Railway is another illustration of how the natural resources of the South stimulate railroad building. This line was originally promoted in the interest of a company which built it to reach pine timber which the company had secured. Its length was a little over five miles, extending from Minden to Sibley, La. Northwest Louisiana attracted the attention of the company, and arrangements were made for extensions. In 1898 thirteen miles additional were completed between Minden and Cotton Valley. It also acquired a small road already in operation. Since then the work of construction has been steadily carried on, until the line is now in operation from Stamps, in Southwestern Arkansas, to the town of Sibley, in Northwestern Louisiana, a distance of sixty-two miles. In addition to this, eighteen miles more are practically completed, making the total length for train service eighty miles. It connects with the St. Louis Southwestern system at Stamps, and with the Vicksburg, Shreveport & Pacific Railroad at Sibley. The company has determined to occupy a territory in Central and Eastern Louisiana which at present depends principally upon water transportation lines for market facilities, and has planned an extension to Natchez, Miss., and to Alexandria, La. The first extension will be built as far as Black River, ninety miles, where connection is made with the Natchez, Red River & Texas road, a small line extending to Vidalia, La., on the Mississippi river, opposite Natchez. At Alexandria it will connect with the Kansas City, Watkins & Gulf Railroad, giving it a line to Southern Louisiana.

Thus in two years the Arkansas, Louisiana & Southern Railroad has developed from a little lumber railroad to one of the most important roads in the Southwest. It reaches not only extensive pine-timber territory, but a very productive cotton country, while general agricultural products create considerable additional freight. The officers are as follows: F. H. Drake, president and general manager; T. Crichton, vice-president; S. G. Webb, secretary and treasurer; O. P. McDonald, superintendent; B. S. Atkinson, general traffic manager. The offices of the company are at Minden, La.

#### West Virginia Central Plans.

A report from Keyser, W. Va., is to the effect that a consolidation has practically been effected of the West Virginia Central & Pittsburg Railway Co. and the Davis Coal & Coke Co. Stockholders of the railway company have had a controlling interest in the coal and coke company, and the latter will be operated in the future under the railway company's charter.

In connection with the consolidation, it is understood that several extensions proposed by the company will be carried out in the near future. One of these is from a point near Elkins to a connection with the branch being built by the Chesapeake & Ohio, along the Greenbrier valley, recently alluded to in the Manufacturers' Record. Another is from Huttonsville south to a connection with the Charleston, Clendennin & Sutton Railroad, which would give the West Virginia Central & Pittsburg a line to Charleston, W. Va. In the last issue of the Manufacturers' Record reference was made to the formation of the Trust Company of West Virginia at Elkins, W. Va., in which Hon. Stephen B. Elkins, Hon. Henry G. Davis and others of the West Virginia Central Rail-

way Co. are interested. It is possible that the trust company has been created in order to finance the proposed extensions of the railroad and to extend the business of the coal company.

#### Annual Meetings.

At the annual meeting of the Atlantic Coast Line Company of Virginia at Richmond, Va., the present officers were re-elected. At the same time the annual meeting of the Richmond, Fredericksburg & Potomac Railroad Co. was held, resulting in the re-election of the present officers. The financial report of the R. F. & P. showed that the total revenue amounted to \$921,000 and the net revenue to \$348,000. After deducting interest and dividends and all charges, a surplus was left of \$99,000. It is a noticeable feature of the report that the passenger business increased 20 per cent. during the year and freight business 13 per cent.

#### Rapid Railroad Building.

One of the most rapid pieces of construction work in the country was that recently completed in South Carolina in the interest of the Southern Company. The distance was from Cayce's Station to Perry, forming a connecting link in the new route of the Southern between New York and Florida. The distance was thirty-two and one-half miles, but the difficulties involved in the construction were many. Work was begun in July last and completed in four and one-half months. Messrs. T. B. Jones & Co. of Baltimore were the principal contractors.

#### Cincinnati Southern's Manager.

Mr. W. J. Murphy has been appointed general manager of the Cincinnati Southern system. Mr. Murphy has had an extended railroad career, being associated with the Erie system, also with the Queen & Crescent system as division superintendent. It is understood that the appointment was made at the instance of President Spencer of the Cincinnati Southern.

#### Railroad Notes.

The announcement is made that J. J. Frey has tendered his resignation as general manager of the Santa Fe system.

Mr. Edwin Butler has been appointed soliciting freight agent for the Seaboard Air Line and connections with office at Boston, Mass.

The shops of the Western Maryland Railroad Co. at Union Bridge, Md., are equipped for turning out a variety of rolling stock, as well as making extensive repairs. The company is now constructing at its plant four caboose cars, twelve coal cars having a capacity for thirty tons each, as well as a number of flat cars.

The business men of Memphis are appreciating the opportunity for securing trade in Arkansas and Oklahoma Territory by the completion of the Choctaw & Memphis Railroad, and will make a series of trips over the new line, stopping at the principal towns. Special train service for them will be provided by the company.

It is announced that the Nashville, Chattanooga & St. Louis Railroad Co. has determined to utilize the Florida Central & Peninsular system for its Florida connection, and that train service to points in Florida from cities along the line of the Nashville, Chattanooga & St. Louis will be over the Central instead of the Plant system, as in the past.

During the year ended October 31 permits for the erection of 575 buildings were issued at Newport News, Va.

#### FOREIGN TRADE.

This department is designed to set forth opportunities for the extension of the trade abroad of American manufacturers, and to record facts about the rapidly-developing commerce of the South.

#### Expansion and the South.

A dispatch from Charlotte, N. C., to the New York Sun says:

"Dr. J. H. McAden is president of the Southern Cotton Spinners' Association, whose board of governors recently passed resolutions favoring expansion and action by this government to protect American commercial interests in China and the Far East. So much attention has been attracted by the resolutions that Dr. McAden has been asked for further information as to the attitude of Southern manufacturers on the questions treated.

"What, in your opinion, are the views of the members of the Southern Cotton Spinners' Association on the subject of expansion as it applies to Cuba, Porto Rico and the Philippine Islands?" he was asked.

"I suppose you have reference to the resolutions passed by the Southern Cotton Spinners' Association held in Charlotte recently," he replied. "These resolutions were considered by the members of the association as non-political, and purely from a business standpoint. The author of the resolutions is a democrat; they were seconded by a democrat in a short, forcible and eloquent speech, and were passed without a dissenting vote. A very large majority of the members of the association are democrats."

"In your opinion, what position do the members of the Southern Cotton Spinners' Association hold in regard to the policy of the United States and this administration?"

"The members of this association look upon this question purely as a business proposition. Neither of the great political parties has declared its policy on these questions. Our manufacturers of cotton goods know that there is an increasing demand for American products in China, and the outlook is bright if our manufacturers will improve it. Hence we are in favor of the open-door policy with China and Japan, and for every facility for export trade. They are, therefore, heartily in favor of maintaining and extending our trade with China, laying the Pacific cable and constructing the Nicaraguan canal. They believe that this should be the united policy of both of the great political parties in the near future. They believe the President of the United States has broad, comprehensive and patriotic views of public policy, and in his management of the Philippine Islands he will preserve the honor and dignity of the American flag."

#### Growth of Newport News.

Several years ago the Manufacturers' Record referred to the value of such industries as the Newport News ship-yard in adding to the population and business interests of a community. At that time it was noted that the force at the ship-yard would probably be doubled, and that several hundred additional houses would be needed for residences. A report which has been completed for the year ending October 31 shows that 575 new dwellings have been erected in that period. They range from residences costing \$6000 to \$8000 each to cottages costing \$500 to \$1000. The working force of the company since the time the Manufacturers' Record made its first prediction has increased about 2500, or nearly 50 per cent. At the ship-yard the keel of one of the steamships for the Pacific Mail service has just been laid, besides that of the monitor Ar-

kansas. A report is current that the shipbuilding company is negotiating to build another vessel of over 10,000 tons for an American company.

#### New Orleans to Japan.

The sailing for Japan from New Orleans of a steamship loaded with 8971 bales of cotton and 2518 tons of phosphate rock, the pioneer of this season in such a movement, leads the Times-Democrat to urge that New Orleans should have its full share of the trade with the Orient. It says: "There is, as we know, no better field for commerce than the Pacific, and the great powers of Europe and America are struggling for it. \* \* \* This explains the Samoan question, the partition of China and a score of similar movements. The United States should get its full share of this business, and our possession of Hawaii, of Guam, of one of the Samoan islands, and our occupation of the Philippines, gives us splendid opportunities." The sailing for Japan from New Orleans is by way of the Suez canal, but a great impetus would be given to it in the view of the Times-Democrat by a shortening of the route to Japan by the Nicaragua canal.

#### The Russian Market.

In concluding a report upon the opportunities in Russia for American trade, United States Consul Monaghan of Chemnitz writes:

"The field open to us is enormous. Russia will want for a long time the same kinds of tools, implements and machines as we have used. It has mines to open, oil fields to drain or exploit, forests to cut down, mills to build, roads, railroads and bridges to construct. All kinds of time and labor-saving machines will be wanted. One ounce of effort put into Russia will yield better results than tons in Germany and other parts of this old continent. Germany, Belgium, France, England—all of them—are aiming for the same goal—a foothold in Russia. An effort now, before the important parts are all taken, will pay much better than later on."

#### Swiss Demand for Coke.

An industrial organization of Newhaven, Switzerland, has written to the American consulate at Basle as follows:

"There has been such an increase in the price of coal and coke on the Continent of Europe within the last year that there seems to be a possibility of importing these materials with advantage from the United States. As our establishment uses more than 10,000 tons of coke yearly, we should be glad to establish relations with several American factories producing coke of acknowledged excellence, or with large business houses dealing in the same article. We shall therefore be obliged if you will send us a few addresses."

#### New Steamer in Service.

The Queen Anne's Ferry & Equipment Co. has placed the new steamer Queen Anne, built for the route between Baltimore and Queenstown, to connect with the Queen Anne's Railroad. The new vessel has been already described in the Manufacturers' Record, and will be used exclusively for this service. She has ample accommodations for passengers, as well as a large freight capacity, and was constructed especially with the view of shortening the time schedule of the railroad company.

#### Southern Terminals as Models.

The Chicago Transfer & Clearing Co. is preparing to build an extensive system of freight-yards in the suburbs of that city, and has sent its chief engineer on a tour

of the principal Southern cities with the view of examining the terminals now in operation to get ideas for its own system. This is a high compliment to the superiority of the terminals which have been constructed at such points as New Orleans, Galveston, Norfolk and elsewhere in the South.

#### Every Steamer in Service.

A dispatch from New Orleans, La., indicates that the steamboat business on the Mississippi river and its tributaries is very extensive. Every steamer which can be utilized for passenger and freight service has been chartered, and recently, when one was desired to entertain members of the waterways convention, none could be secured. This indicates that in spite of the increased railroad facilities, the business now being done in the country reached by the lower Mississippi and its tributaries is so large as to utilize all of the service of the steamboat companies, in addition to that of the land transportation companies.

#### Jottings at the Ports.

An indication of export business from Pensacola, Fla., is given by the cargoes of one week recently, which amounted to \$367,000. Twelve vessels were loaded.

The Albemarle & Chesapeake Canal Co. has re-elected its present officers, who are as follows: Warren G. Elliott, president; Robert M. Cannon, vice-president and general manager; D. S. Burwell, secretary and treasurer.

The steamship Manchester City has loaded a cargo of mules for South Africa at New Orleans which again breaks the record. She is a new vessel, and one of the fleet built for the Manchester ship canal service, but has been chartered by the British government for a transport. The Manchester City will carry about 2200 of these animals, in addition to the necessary fodder and water.

#### Richmond, the Shipbuilder.

A large committee representing the aldermen and common council, the Chamber of Commerce, the Clearing-House Association, the Young Men's Business Association, the tobacco trade and the Grain and Cotton Exchange of Richmond, Va., called upon Secretary Root of the War Department and Assistant Secretary Allen of the Navy Department at Washington last week to impress upon them the necessity of improving the harbor and river at Richmond. Secretary Root recognized the necessity and agreed that the work should be done as soon as possible. The committee returned to Richmond deeply impressed with the belief that the city will have an excellent harbor approached by a river with a depth of twenty-five feet from the ocean to the city. It is believed that the prospect of these improvements will stimulate the development of a shipbuilding plant at Richmond, and consequently give an impetus to other manufacturing interests there. The contract to be awarded to the W. R. Trigg Shipbuilding Co. will necessitate, it is said, an increase of the force at the present plant from 600 to 1600, and it is probable that the company will have to go outside the city to secure some of the skilled labor.

It is calculated that the work of constructing the Sabine Pass jetties, begun in 1881 by the government, will be completed within seven months at a cost of \$2,800,000. The depth of water over the bar has increased from six and one-half to twenty-four feet.

The Savannah Cotton Exchange has elected Charles A. Shearon, president, and J. T. Williams, vice-president.

## TEXTILES.

[A complete record of new textile enterprises in the South will be found in the Construction Department.]

Correspondence relating to textile matters, especially to the cotton-mill interests of the South, and items of news about new mills or enlargements, special contracts for goods, market conditions, etc., are invited by the Manufacturers' Record. We shall be glad to have such matter at all times, and also to have any general discussion relating to cotton matters.

#### HIGH SHOALS POWER.

##### Large Project for the Development of Manufacturing.

[Special Cor. Manufacturers' Record.]

Charlotte, N. C., November 21.

The development of the High Shoals water-power is second in extent to the proposed development of the Catawba river water-power, mentioned in this correspondence last week. When the present project is completed the High Shoals power will be running 50,000 spindles. The capital interested runs into the millions. The title is the High Shoals Company. The company is building a mill on the site of the old iron works, near Lincolnton, N. C. This is a fine water-power, which was used in the early part of the century by the Fullenweiders to operate a large iron works. The iron company in that time owned several charcoal blast furnaces and operated a number of Catlin forges and a rolling mill by water-power at High Shoals. It is said that quality of iron made there was very superior, and that much of it found a market in Boston, being hauled in wagons to Fayetteville, thence by river to Wilmington, and thence to Boston in vessels.

After the war Admiral Wilkes reconstructed the iron works and operated them for a number of years.

The company now developing the power anew is made up of capitalists from Pittsburgh, New York and Charlotte. A fine stone dam is being built, and a cotton mill is being constructed. The mill is being built to hold 10,000 spindles and 150 looms. Of these, 5000 spindles will be put in at once, and the remainder added later. The dam and water-power development will be sufficient for 50,000 spindles. It is expected that the spindles will be increased from time to time until the limit of the power is reached.

The company's business office is in Charlotte. The water-power where the mill will be is about twenty-five miles northwest of Charlotte, on the Seaboard Air Line.

#### For a \$200,000 Mill.

In a letter to the Manufacturers' Record Mr. W. T. Beatty of Union, S. C., writes:

"Another new cotton mill is to be built in Union. It will be capitalized at \$200,000, one-half of which was raised in the city of Union by the originator and prime mover, John A. Fant, in a few hours' canvass. Mr. Fant was surprised at his own success in securing subscribers for such amounts in so short a time. A number of his largest subscribers are large stockholders in the present prosperous Union Cotton Mills, whose president, T. C. Duncan, although a young man, is justly considered one of the most sagacious and remarkable mill presidents of the South. Our people are thus showing that they are not afraid to invest their money in home enterprise. The following business men in Union have taken stock in this new enterprise: John A. Fant, director in Union Cotton Mills and Merchants and Planters' National Bank; F. M. Farr, president Merchants and Planters' National Bank; E. Nicholson, presi-

dent Wm. A. Nicholson & Son, banking house; J. C. Duncan, president Union Cotton Mills; W. E. Thomson, president Union Oil Mill, and A. H. Foster, one of the wealthiest capitalists in upper South Carolina. It is believed that within the next ten days Mr. Fant will secure his desired amount of stock, and will immediately apply for a charter and be prepared for the organization of this new corporation."

#### Greenville's New Cotton Factory.

The Quintin Mills of Greenville, S. C., recently reported as incorporated, will be known as the Brandon Mills, and not under the name first chosen. The stockholders held a meeting last week and perfected organization, electing the following directors: Messrs. J. I. Westervelt, W. E. Beattie, Frank Hammond and W. J. Thackston, all of Greenville, S. C.; E. A. Smyth of Pelzer, S. C.; Summerfield Baldwin of Baltimore, Md., and J. J. Hanahan of Charleston, S. C. These directors elected Mr. Westervelt, president; Frank Hammond, vice-president, and W. B. Smith, secretary. The company contemplates a 12,000-spindle and 300-loom factory, and will soon make definite decision regarding the equipment and prepare to let contracts for erection of buildings and supplying of machinery. Forty tenement-houses for operatives will be erected, and plans and specifications for these are now on file at president's office, 106 E. Washington street, Greenville, S. C. Bids are solicited. Contracts for machinery have been closed.

#### Roller-Gin Plant.

Mr. Thomas W. Prior of the American Ginning Co., which is operating the Prior roller gins, has made contracts for the erection of a large ginnery at Delta, La. This will be the first ginnery in America to contain these gins, which are not to be placed upon the market, save for this plant, until the coming cotton season. The ginnery will be a modern one, containing eight of the new roller gins, and will have a complete up-to-date system of handling the cotton. It is confidently expected by the controllers of the Prior gin that with the erection of the plant at Delta the principle of the gins will receive such publicity that the staple cotton of the Mississippi valley will be largely ginned on the new gin the ensuing season.

#### Cotton Movement.

In his report for November 17 Col. Henry G. Hester of the New Orleans Cotton Exchange shows that the amount of cotton brought into sight during the seventy-eight days of the present season was 3,769,508 bales, a decrease under the same period last year of 842,066 bales. The exports were 1,648,674 bales, a decrease of 609,965 bales. Takings by Northern spinners were 692,625 bales, an increase of 195,385; by Southern spinners 358,188 bales, an increase of 35,383 bales. Up to November 17, 1898, 40.90 per cent. of the crop had been brought into sight. If that rate prevails this year the crop would be 9,213,963 bales.

#### Want Cotton-Mill Location.

Elsewhere in this issue is published an advertisement asking for information as to a good site for a cotton mill. While letters are to be addressed to a legal firm, the company seeking this information is rated by Bradstreet's as having a capital of from \$500,000 to \$1,000,000.

#### Textile Notes.

Messrs. W. Harris and L. Zucker of Albany, Ga., will build a knitting mill.

Messrs. W. J. Graham and Samuel Patton of Henderson, Texas, are inter-

ested in a projected cotton-factory company.

Messrs. Geo. T. Jester, Fred Fleming, J. E. Whiteselle and others are pushing the project for a cotton-mill company in Corsicana, Texas.

It is reported that Mr. Collis P. Huntington of 23 Broad street, New York, is contemplating the erection of a large cotton factory in Newport News, Va.

The McElwee Company, recently noted as incorporated with capital stock of \$25,000, will operate an established mill, that of the Rockford (Tenn.) Cotton Mills.

Messrs. A. M. Foute and W. H. Howard of Cartersville, Ga., are organizing a \$75,000 stock company for the establishment of a 3500-spindle cotton factory.

Mr. Fred L. Hennington of Terry, Miss., will organize a cotton-factory company, and will want all the machinery necessary for a \$50,000 to \$100,000 stock company.

The Elm Grove Cotton Mills of Lincolnton, N. C., will install about \$30,000 worth of additional machinery. Just what the new equipment will consist of is not yet known. Present equipment is 6600 spindles.

The movement for a cotton-factory company at Dillon, S. C., proposes a 10,000-spindle and 170-loom plant. Application for charter will be made next week. Mr. T. B. Stackhouse is interested in the enterprise.

The Linden Manufacturing Co. of Davidson, N. C., has placed an order for 2000 additional spindles, which will give it 4500 in all. The necessary preparatory machinery also comes with the new equipment.

The company recently noted as proposed at Jonesville, S. C., has incorporated as the Jonesville Cotton Mills, the incorporators being Messrs. J. J. Littlejohn, W. L. Littlejohn and others. The capital stock is \$100,000.

Messrs. Bacon & Co. of Maysville, Ga., contemplate the erection of a knitting mill for the production of hosiery, and want estimates on cost of necessary equipment, together with general information regarding the industry.

The Merrimack Manufacturing Co. is preparing to commence the erection of its second mill at Huntsville, Ala. The first mill is well under way. It will be recalled that this company will build eight mills of 25,000 spindles each.

Mr. G. W. Ragan, secretary-treasurer of the Trenton Cotton Mills of Gastonia, N. C., has sold his interest in the company to Mr. J. K. Dixon of Athens, Ga. Mr. Ragan will probably organize a new company for the erection of a large mill.

The Cox Manufacturing Co. of Anderson, S. C., incorporated several months ago, has decided to build a 5000-spindle plant. Contract for erection of necessary main building has been given to Mr. C. M. Guest, and work on it has been commenced.

Mr. J. W. Blanton, secretary of the Citizens' Business League of Gainesville, Texas, is promoting the movement for a cotton factory. A \$50,000 plant is proposed, to manufacture cheaper grades of goods. Parties who are likely to invest are invited to correspond.

Mr. A. B. Groce of Duncans, S. C., who recently purchased the Van Patton shoals, states that his intention is to build a cotton mill and develop the water-power of the shoals. About 2500 horse-power is available. No details as to development or mill have been decided yet.

The movement for a cotton mill at Tupelo, Miss., has resulted in the obtaining of subscriptions amounting to over \$100,

000. The company will soon formally organize and settle upon the details for its mill. Mr. L. D. Hines of Ripley, Miss., will be president and general manager of the company.

Messrs. W. P. Roof of Lexington, S. C.; Allen Jones of Columbia, S. C., and Drewry & Foster of New York have purchased the Batesburg (S. C.) Cotton Mill, having 3000 spindles and 100 looms. The new owners will overhaul and improve the factory, put in new machinery, etc., and operate it.

Mr. T. A. Capps of Toccoa, Ga., mentioned last week as to build a \$60,000 cotton factory, states that the plant will be one of 5000 spindles at the start, a complement of looms to be installed after operations are in progress. Manufacturers of machinery may find it productive of future business to address Mr. Capps.

The Willingham Cotton Mills of Macon, Ga., is employing more operatives in order to double capacity. Contract has been awarded for the erection of twenty-seven new tenement-houses. The plant has 5160 spindles, and runs day and night. This is a new mill, which commenced operations three months ago.

The Huntsville (Ala.) Chamber of Commerce is now seeking a site for two cotton factories that are to be built. These new mills have been secured through the efforts of the association. One mill will have 50,000 spindles and employ 1500 hands; the other will be a combined knitting and cotton mill. The two new mills are rated at \$1,750,000.

Application has been made for a charter for the Pembroke Manufacturing Co. of New Berne, N. C., its capital stock being \$75,000, and its purpose being the erection of a cotton mill. Among the incorporators are Messrs. William Dunn, Chas. S. Hollister, J. C. Whitley, C. D. Bradham and P. H. Pelletier. The last named is temporary secretary of the company.

John L. Schroeder of 339 Decatur street, New Orleans, La., states he and associates contemplate the erection of a combined cotton-yarn and twine mill. They will probably install about 1500 spindles and other complementary machinery for the production of the goods mentioned. Manufacturers of machinery are solicited to send information, catalogues, prices, etc.

Application has been made for a charter for the Thomaston (Ga.) Cotton Mills, the capital stock being \$70,000, and privilege retained of increase to \$500,000. The incorporators are Messrs. W. S. Witham, Atlanta, Ga.; R. A. Matthews, R. E. Hightower, J. R. Lane, T. M. Matthews, I. C. Thompson and others of Thomaston. The company is to build the cotton factory lately noted as proposed.

Mr. Samuel Winters, proprietor of the West Shore Knitting Mill of Amsterdam, N. Y., has written the Chamber of Commerce of Raleigh, N. C., stating his intention to remove to a Southern location. Mr. Winters desires to be near the cotton fields, and is desirous of receiving a proposition from Raleigh for locating there. The West Shore plant has forty-five knitting machines and fifty sewing machines in operation.

The Gwinnett Cotton Mills of Lawrenceville, Ga., are being organized for the purpose of building a 5000-spindle mill. The capital stock is placed at \$75,000, and is being rapidly subscribed. Mr. L. M. Brand is chairman and W. G. McNeely, secretary, of the temporary committee having the enterprise in charge. Others interested and on the executive committee are Messrs. C. H. Brand, W. E. Simmons, M. E. Ewing, T. R. Powell and M. S. Cornett.

## COTTONSEED OIL.

This department is open for the full and free discussion of trade topics and practical questions, and contributions are invited from men who are identified with this industry. Items of news are always acceptable.

### The Market for Cottonseed Products.

New York, N. Y., November 22.

The market exhibits an upward tendency, while being strong at the moment, although a waiting attitude prevails in the main. More trading took place during last week than the previous one. An improved export demand is in evidence, however, with the outlook promising materially increased business in that respect. In the local and Western markets purchases are largely consumptive requirements. The position of lard is not as assuring as it was some time ago, and compound-lard makers feel a little ticklish on the cotton-oil question. Then, again, the soapmakers at the West are more disposed to hold off on cotton oil, because the position of tallow has not been as promising latterly as some weeks ago. But the mills have confidence in the future, and will not release their oil at below present quotations, believing the future will vindicate their estimate values. Lard quotations during the past few weeks indicate weakness, but cotton-oil prices have maintained their standing, an evidence of the strong probability of higher prices in the event of a more favoring lard market. With regard to the lard market, present indications are that higher prices will prevail.

Hogs are comparatively scarce and correspondingly high. For January delivery, Chicago, lard is quoted at 5.10 cents, but at this writing the market has gone up 10 points. Tallow is easy, 4½ to 4¾ being quoted for No. 1 city-rendered goods, Chicago. Limited supplies are arriving with regard to cotton oil, and it is evident by other happenings that the New York market is uninteresting to the Southern producer at this time. The export shipments compare unfavorably with those of a year ago, the confidence that a large demand will prevail on the first favorable opportunity, with regard to ocean freight rates and other controlling influences, being the opinion of the trade at this market. The following are closing prices: Crude, tanks, 19 to 20 cents; crude, here, barrels, 25 to 26 cents; summer yellow, prime, 28 to 28½ cents; off grades, 28 cents; yellow, butter grades, 31 to 31½ cents; white, 29 to 30 cents; winter yellow, 30½ to 31½ cents, and salad oil, 32 cents. English refined, Hull and Liverpool, is steady at 16/6.

### Cottonseed-Oil Notes.

Among the foreign exports of cottonseed products last week from Galveston, Texas, were the following: 2412 sacks cottonseed cake and 4645 sacks cottonseed meal for Bremen, and 32,875 sacks cottonseed meal for Hamburg.

The market for cottonseed products in Texas is firm at the late decline. Prime crude oil is quoted 20 to 20½ cents, and prime summer yellow at 22½ to 23 cents; linters, 3 to 3½ cents, all delivered at Galveston. Prime cottonseed cake and meal is quoted at \$19.50 to \$20, and Houston mills are paying \$9.50 per ton for cottonseed f. o. b. interior towns in the State.

The new cottonseed-oil mill at Nacogdoches, Texas, commenced crushing operations on the 11th inst., and will continue to run day and night as long as seed can be obtained. The company has a large supply of seed on hand and is constantly buying more. The new plant is fitted with all modern appliances, and the company looks forward to a prosperous season.

A meeting of business men and farmers was held at Centerville, Miss., on the 14th inst. for the purpose of considering the proposition of the American Cotton Co. to erect an oil mill at Centerville in connection with its round-bale ginnery. The meeting was well attended by prominent business men, who indorsed the plan and drew up resolutions to that effect to be forwarded to the American Cotton Co. assuring it of their hearty support.

The market for cottonseed products at New Orleans is steady. Refiners are paying 19¾ to 21½ cents along the valley for loose crude oil. Export sales were made last week of prime yellow for prompt and December at 27½ to 28 cents, and later for January at 28 to 28½ cents. Exports of oil for this week were 579,850 gallons, and for the season 1,141,800 gallons. Receivers' prices are as follows: Cottonseed, \$9 per ton of 2000 pounds delivered here for good, sound seed, including sacks; cottonseed meal jobbing per carload at depot, \$19.50 per short ton of 2000 pounds; for export per long ton of 2240 pounds f. o. b., \$21.25 to \$21.75; oilcake for export, \$21.25 to \$21.75 per long ton f. o. b.; crude cottonseed oil at wholesale or for shipment, 19 to 20 cents per gallon loose f. o. b. tanks here; in barrels, 22 to 23 cents; cottonseed hulls delivered per 100 pounds, according to location of mill, 12 to 20 cents; linters, according to style and staple—A, 3 cents; B, 2½ cents; C, 2 cents.

### Want Site for Brewery.

The capital has been subscribed for building a brewery in the South. Information is desired as to towns in which there is an opening for a large brewery. Please give population and location of nearest brewery. Address "E. O." care Manufacturers' Record.

### Literary Notes.

The Christmas number of Scribner's will contain specimens of the most elaborate color printing. One of the schemes is a religious poem illustrated by the first work in color of Walter Appleton Clark. It has been reproduced with a delicacy and faithfulness to the original which has never been surpassed by the magazine.

Sir Walter Besant begins in the December Century a series of papers illustrating life in East London as it is today. His manner of treating the subject is that of the novelist, rather than the essayist, for he takes as his point of departure the birth of a typical girl of the East End—"One of Two Millions in East London"—and traces her career to the time of her marriage at seventeen to a young countryman who has come up to town to make his living as a porter. No one knows more of the life of the poor in London than the author of "All Sorts and Conditions of Men," and no one is better known as their pictorial interpreter than Phil May, who collaborates with Joseph Pennell in illustrating Sir Walter's article.

The proposed increase of capital by the Dallas Manufacturing Co. of Huntsville, Ala., will be considered at a stockholders' meeting next month. A notice is now being given the stockholders that the date of meeting will be December 19. The proposition is to increase capital stock from \$650,000 to \$1,264,000. This is an increase of \$614,000, and would enable the company to double its 25,000-spindle and 750-loom mill.

A farmers' good-road convention will be held at Gainesville, Texas, on December 6, at which time Gen. E. G. Harrison, a government road expert, will make an address, and will, with the latest improved machinery, build about 300 feet of model road.

**LUMBER.**

[A complete record of new mills and building operations in the South will be found in the Construction Department.]

**LUMBER MARKET REVIEWS.****Baltimore.**

Office Manufacturers' Record,  
Baltimore, Md., November 23.

The local lumber trade is fairly active, and business in nearly every department is good. Stocks in many cases are very light, and indeed it is impossible for mills to supply the wants of commission men and others engaged in the trade. The demand for North Carolina pine is all that could be desired, and in a local way the business is quite active. Air-dried lumber is in good demand from yardmen, box-makers and builders, and prices continue to rule firm, with a higher tendency. The foreign demand for North Carolina pine has improved during the present month, and a number of orders have been received from Great Britain and the Continent during the past week. The stocks at all mills in the North Carolina pine belt are very light, and as fast as the cut comes from the mill it is shipped. The business in white pine is good, and values are firm for all desirable lumber. Cypress is steady as to values, with a better movement reported for the week. In hardwoods the volume of trade continues very good, but business is somewhat restricted for want of stock. The demand for ash, oak, poplar and other commercial woods is brisk, and buyers from nearby towns have been purchasing liberally during the past week. The foreign export trade is fair, and shippers are generally busy and well supplied with orders.

**Savannah.**

[From our own Correspondent]  
Savannah, Ga., November 20.

The week under review has been a very busy one in all departments of the lumber trade of this port, and the demand for lumber continues without interruption. Orders are now coming in from a number of Northern markets, and prices continue to rule firm and higher. The Georgia Saw-Mill Association, at its last meeting at Tifton, raised the price-lists for both interior and coastwise points. There is a very decided movement in lumber at all interior towns, as well as at nearby ports of Georgia. At Brunswick there has been an excellent trade during this month in all wood products, and shipments have been heavy. There has also been a good foreign demand at Darien, but the high ocean freights have restricted trade considerably. During the past week the shipments have been well distributed. The following shipments of lumber and crossties for the week were reported: New York, 1,350,162 feet; Baltimore, 680,595 feet; Philadelphia, 654,374 feet; Newark, N. J., 312,375 feet; Boston, 8008 feet; Perth Amboy, 403,461 feet; Newport, R. I., 374,063 feet; Portland, Me., 678,825 feet, and Newport News, 581,367 feet, making a total of 5,045,230 feet for the week. The freight market continues firm, with a scarcity of desirable vessels. Rates on lumber are now quoted as follows: Sail to Baltimore \$5.50, to Philadelphia \$6, to New York \$7, to Boston and Portland \$7.50; crossties, forty-four feet, to Baltimore 17 cents, to Philadelphia 17½ cents, to New York 18 cents.

**Pensacola.**

[From our own Correspondent]  
Pensacola, Fla., November 20.

Among the primary industries of this port the volume of business in lumber and timber is of a character that places Pensacola among the first of the Gulf ports; in fact, the general trade of the port was

never perhaps in a more healthy condition. Business in shipping, real estate and building operations is brisk, and all improvements now in progress are of a most solid character. Receipts of lumber over the Louisville & Nashville Railroad are very heavy, and indications point to a continuance of lumber traffic by this road. The demand for lumber and timber has been very active throughout this year, and when the final statement of the year's work is completed the figures are likely to be the largest in the history of this important industry. For the week ending the 18th inst. the value of foreign exports from this port amounted to \$179,046. The shipments of lumber and timber during the week amounted to 7,622,000 feet. During the week four steam and eight sailing vessels of an aggregate tonnage of 14,315 arrived, and three steam and five sail vessels of an aggregate tonnage of 10,578 cleared. Vessels loading here are all receiving prompt dispatch, and the number loading last week with lumber and timber showed remarkable facilities for quick dispatch. Lumber and timber freights are firm, and vessels are offered in a moderate way. As one instance of the volume of business of a single Pensacola firm the London Timber Trades Journal of November 4 has the following: "A Record Pitch-Pine Shipment.—Baars, Dunwody & Co. of Pensacola have shipped during the season just closed 117 cargoes of pitch pine, aggregating 154,853 tons. The wood shipped consisted of 6,479,676 superficial feet hewn timber, 84,912,066 superficial feet sawn timber, 40,304,714 superficial feet lumber, making a total of 131,696,456 superficial feet, or roughly, 65,000 Petersburg standards. The shipments were made from Pensacola, Mobile and Ship Island, and Tagart, Beaton & Co., the European agents of this firm, inform us that the above exceeds the pitch-pine export of any individual firm for this or any previous year."

**Mobile.**

[From our own Correspondent]  
Mobile, Ala., November 20.

The general trade of this port shows wonderful expansion, and all along the river front the wharves are fully occupied by vessels taking on cargoes, while others are anchored in the stream waiting an opportunity to secure a berth. Among the primary industries here the timber and lumber trade is at the moment showing an excellent volume of business. Stocks of timber are very light, and values firm at 14 to 14½ cents for sawn timber and 14½ to 15 cents for hewn timber. Shipments of sawn timber last week aggregated 459,498 cubic feet for Great Britain and France. Advices from Great Britain and the Continent are encouraging, with prices for timber firm and tending higher. The London Timber Trades Journal of November 11, in commenting on the pitch-pine trade, says: "There is not much doing, great difficulty being experienced in getting goods to ship. We understand that two steamer cargoes are expected, both from Pensacola. One is now loading, and the other on her way to U. K., calling at the Continent on her way. C. i. f. prices of timber remain as last quoted, viz., 62s. 6d. for thirty feet average and 65s. for thirty-five feet. Values on the spot are hardening every day, and we heard 90s. was quoted for special average logs now in the docks. Several cargoes, however, have been contracted for to the Clyde and East Coast at 62s. 6d. to 63s. 6d., on a basis of thirty-five cubic feet."

The lumber trade during the past week has shown considerable activity, and the demand has been very decided from the usual sources. Prices continue firm, with stocks at all milling points very much reduced. The total shipments for the week

aggregate 2,261,060 feet. The total shipments of lumber from this port since September 1 amount to 27,278,025 feet, against 8,901,065 feet for the corresponding period last year. Lumber and timber freights are firm, with a moderate offering of tonnage. Among the charters reported last week were the following: Bark Conductor, 1,083 tons, from Mobile to Buenos Ayres with lumber at \$13; a foreign bark from the Gulf to Rio Janeiro with lumber at \$15, \$2 form, and schooner Clara E. Randall from Pensacola to New York with lumber on private terms.

**Lumber Notes.**

The Hamburg Stave Co. of Hamburg, Ark., has filed a notice with the secretary of state of increase of capital stock from \$10,000 to \$25,000.

Receipts of lumber at New Orleans for the week ending the 17th inst. amounted to 1,957,362 feet, and for the season 28,790,371 feet, against 25,195,700 feet for the corresponding period last year.

A building and dry-kiln of the Lutcher & Moore Cypress Lumber Co. at Lutcher, La., was destroyed by fire on the 16th inst. The loss is estimated at \$5,000, with probable insurance to cover it.

The High Point Chair Co. of High Point, N. C., has been incorporated, with a capital stock of \$9000, all subscribed. The incorporators are Elmira J. Ingram, Benjamin Best, Joseph Best and Sherrod & Baker.

E. T. Williams & Co. of Norfolk, Va., have just finished a big contract with the firm of Smith, Moore & Co. of Baltimore and Snow Hill, Md., having towed 10,000,000 feet of lumber from Norfolk to Snow Hill, Md.

W. D. Green and G. W. Allen of Vincennes, Ind., will establish a saw and planing mill, sash, door and blind factory at the mouth of Bayou Rapides, near Alexandria, La., provided a sufficient sum is raised to dam the bayou.

A fire which occurred on the 14th inst. in the timber-yard of H. Y. Quayle & Sons of Liverpool, England, spread to the yards of the creosoting company and G. R. Eysmons. Both were destroyed. The loss is estimated at \$500,000.

The Drew Lumber Co. of Constance, Drew county, Arkansas, has been incorporated, with a capital stock of \$75,000, of which \$40,000 has been subscribed. A. B. Banks is president, and E. W. Gates, H. C. Rule and J. C. Norcott are directors.

The Crescent Lumber Co., Limited, of New Orleans has been incorporated with a capital stock of \$15,000. The company proposes to develop timber lands, erect saw-mills, etc. The incorporators are W. S. Robertson, N. W. Murphy, F. W. Breedlove, Thos. J. Clark and others.

Thirteen parcels of timber land aggregating 2500 acres belonging to the estate of George J. Appold, deceased, of Baltimore were disposed of at Cumberland last week. The sale netted \$4184.79, the prices ranging from \$1 to \$3 per acre. The lands lie four miles east of Cumberland and extend nearly to Flintstone and Oldtown.

Senator F. B. Williams, the owner of a large cypress mill at Patterson, La., has just purchased the property of the Red Cypress Lumber Co. at Patterson, consisting of a large cypress milling plant and other holdings. The acquisition of this property will give Mr. Williams a capacity of over 200,000 feet of cypress lumber per day. The plant will be thoroughly overhauled and repaired, when it will be operated on an extensive scale by the new owner.

The Hughes Furniture Manufacturing Co. of Baltimore has purchased the prop-

erty on Hubert street, Locust Point, owned by the Locust Point Land Co. for \$18,000. The property has a frontage of 200 feet and a depth of 150 feet. A number of improvements are to be made by the furniture company, among which will be the building of a three-story brick building 60x48 feet adjoining the main factory. The premises were occupied for a number of years by the Sauer Showcase Co.

Messrs. Crane & McMahan of New York have purchased the hardwood works on Southern wharf at Charleston, S. C., and have established a branch of their extensive business under the name of the Carolina Hardwood & Shuttle Co. Messrs. Crane & McMahan own and operate the Virginia & North Carolina Wheel Works at Richmond, Va., and the St. Mary's Spoke Works at St. Mary's, Ohio. The firm intends to develop their Charleston branch as rapidly as conditions will permit. The works at Charleston will manufacture shuttles and all wood parts of wheels.

The following capitalists interested in the Creelman Export Lumber Co. visited Mobile last week to inspect the property of the company: F. E. Creelman of Cairo, president of the company; Fred Upham, Chicago; J. F. Sandthorpe, J. P. Schuh, H. F. Candee, Cairo. The company proposes to increase the capacity of its mill, which cuts nothing but hardwoods. It has 5,000,000 feet of oak, ash and cottonwood in the rivers above Mobile ready to raft down to its mills, and will build large barges to deliver the company's product in lots of a million feet at a time at ship's side at Mobile.

The Wood Shippers' Association met last week in Richmond, Va., to perfect plans for organizing an association for the handling of Northern wood. The report of the committee appointed to draw up plans for a permanent organization was adopted, and the secretary was instructed to make application for a charter. The name of the company is to be the Virginia Cordwood Association. It was decided to raise the price of cordwood fifty cents per cord above the minimum price decided upon at last meeting, making the price \$4.25 per cord for first-class wood and \$3.75 for second-class, all f. o. b. vessel.

The semi-annual convention of the National Hardwood Association was called to order in Memphis on the 16th inst. by President Bennett of Cincinnati. Mayor Williams of Memphis welcomed the delegates, after which President Bennett submitted his annual report. Secretary Vennedge followed the president with the reading of his report. At the afternoon session Hon. John L. Martin of St. Louis and J. N. Seachard of Buffalo, president of the Wholesale Lumber Dealers' Association, addressed the convention. Mr. W. H. Winchester of West Virginia, the national lumber commissioner in charge of the American lumber exhibit to be made at the Paris Exposition, was introduced and made an address, emphasizing the necessity of a grand exhibit at the next world's fair. The attendance at the convention was unusually large, all the lumber sections of the country being represented.

The board of naval bureau chiefs will recommend that the W. R. Trigg Shipbuilding Co. of Richmond, Va., be given the contract for building one of the six new protected cruisers of the United States Navy.

It is announced that Col. William Lamb of Norfolk, Va., has made a contract for furnishing large supplies of Pocahontas coal for the United States Navy to be sent to Manila and Puerto Rico.

## MECHANICAL.

### Reliable Safety Tackle-Block.

The numerous branches of industrial life require for their economical and satisfactory conduct a large number of small supplies and equipments. Among these equipments may be noted the tackle-block,



FIG. 1.

than which possibly no apparatus for hand-power is more generally used.

A reliable safety tackle-block is an ever-wanted article, and this is what the F. X. Rousseau Manufacturing Co. of Detroit, Mich., offers the public.

The illustrations presented will give a clear idea of these tackle-blocks. The lock consists of only one piece, dropping of its own weight on rope over sheave, and being the cam or eccentric movement, the heavier the load the tighter it locks.



FIG. 2.

Two of these eccentrics are put on each block, one over each sheave. They act independently of each other, so as to insure absolute safety, making it the only block (it is claimed) on the market with a double lock. This block is made of steel and the best annealed malleable iron, making it one of the strongest and best-finished articles of its kind. For prices and further details address the maker.

### Collis Circulating Valve.

This valve has long been experimented with by the ablest men in the heating business, and in placing it on the market the

makers offer a valve whose merits have been proved.

This valve when attached to a radiator enables a perfect circulation of dry steam at all times up to the seat of the valve.

Only one valve is required for a radiator, and the circulation will be active and positive whether the valve is open, partly open or closed.

Heating surfaces can be warmed much more quickly and effectively when steam is turned on at the radiator, and the usual

dress the manufacturers, Messrs. Jenkins Bros., 71 John street, New York.

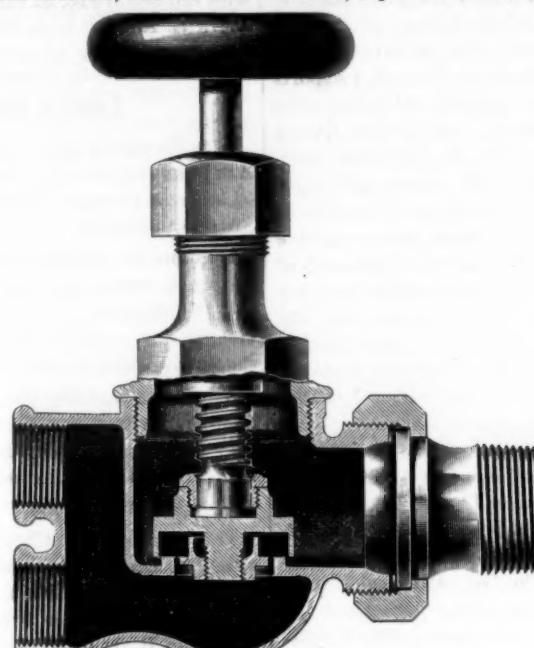
### Indicating Automatic Water-Gauge.

Engineers and others who are conversant with the fact that patterns of water-gauges are frequently far from satisfactory will find of much interest the accompanying illustration of an indicating automatic water-gauge.

This gauge is adapted for all kinds of boilers, separators, tanks, etc., and is the

removed; fuming, vibration or jar cannot close the valve; blow-off valve can be placed in easy reach and valves operated from any distance by wire attachments, thus avoiding use of ladders.

The manufacturer of this gauge is Mr.



COLLIS CIRCULATING VALVE.

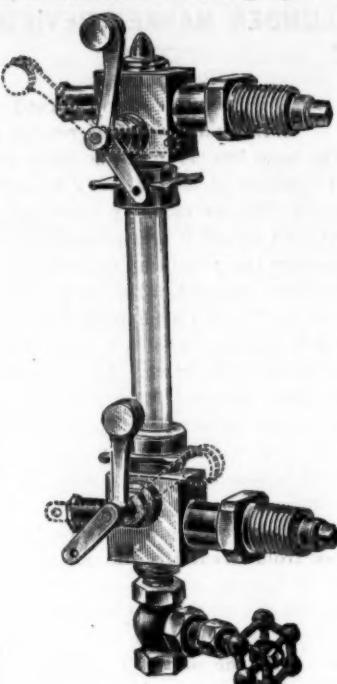
hammer which takes place when steam is turned on is prevented.

Radiator connections can be neatly and mechanically run above the floor and attached to the valve without making them unsightly.

With this valve there is a complete circulation in the apparatus when radiators are disconnected, and they can be disconnected and reconnected without shutting down the whole system. This will be found

invention of a practical engineer whose observations in practice, together with experiments, have enabled him to present this satisfactory device. It has been used widely and found to have every merit claimed for it.

The device contains no check or other auxiliary valves; there are large openings for steam and water; the water-level is shown absolutely correctly; the slightest movement of the valve is immediately



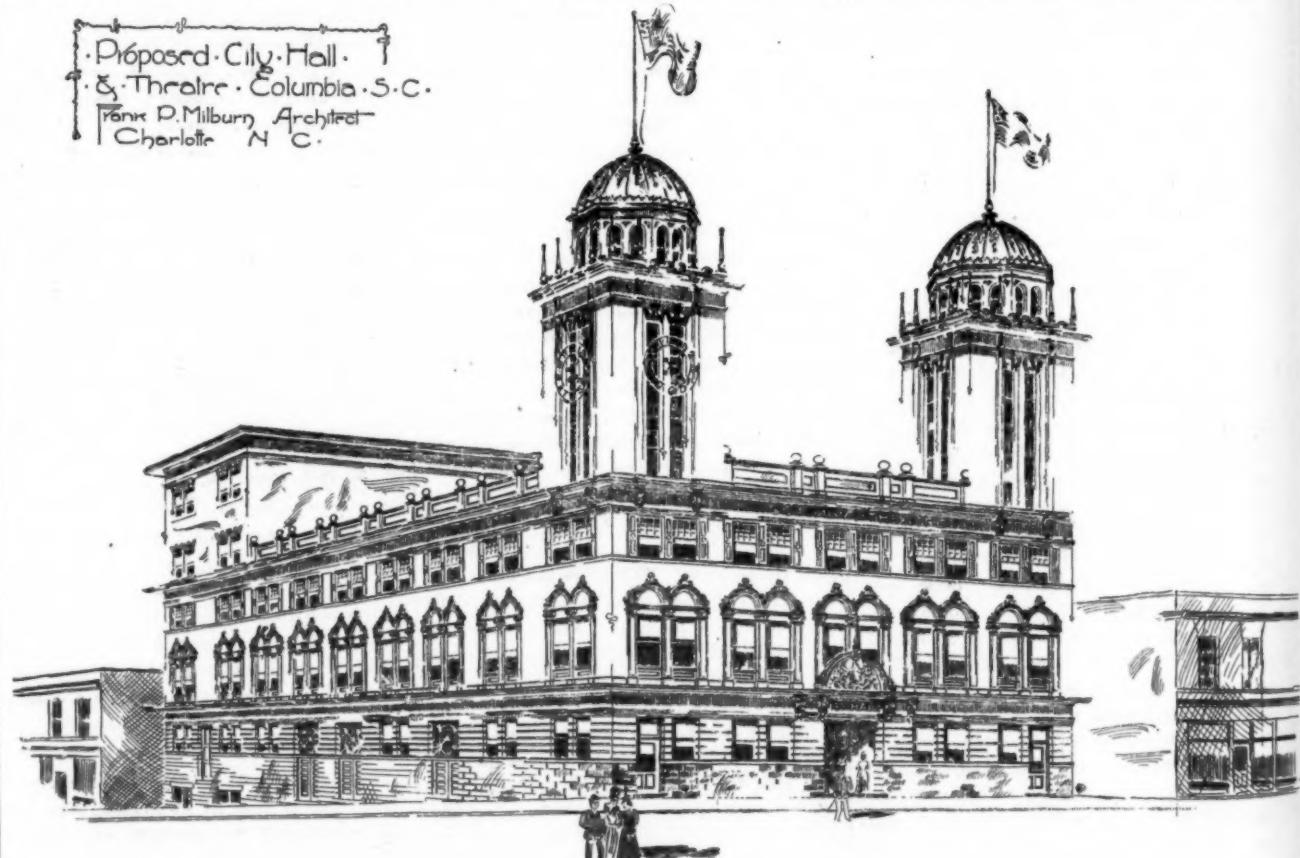
AUTOMATIC WATER-GAUGE.

H. S. Gruber of 412 Pine street, St. Louis, Mo., who will supply prices and further information.

### Columbia's New City Hall.

The advance of the South along general industrial lines has been kept pace with by the activity in building circles. Many handsome structures have been built in the section during recent years, both by private parties and by municipalities or other local governments. The very latest important Southern municipal building decided upon is that for city hall and opera-house purposes at Columbia, S. C., of which we present an illustration as it will

Proposed City Hall & Theatre Columbia S.C.  
Frank P. Milburn Architect  
Charlotte N.C.



very convenient when using radiators for temporary heating in new buildings, etc.

The Collis valve can be adopted for use with any of the automatic heat-regulating systems by removing the regular bonnet and substituting the diaphragm bonnet and trimmings of the regulating system that may be used.

For sizes, prices and other details ad-

shown by the indicator, and, in consequence, the position of the valve is always apparent at a glance at the indicator. Furthermore, the gauge is self-cleaning; there is no corrosion, no stuffing-boxes, no clogging; it works under the slightest pressure; has absolute and instantaneous shut-off; valves will remain closed should glass break, even after pressure is entirely

appear when completed. The building will be in French renaissance style, with every modern improvement and appliances for health and comfort, and about \$50,000 will be its cost. The plans and specifications are by Mr. Frank P. Milburn of Charlotte, N. C., who has made the drawings for so many of the South's most prominent buildings.

**PHOSPHATES.****THE MT. PLEASANT FIELD.****Activity in the Phosphate Mines on the Increase.**

[Special Cor. Manufacturers' Record.]

Mt. Pleasant, Tenn., November 20.

The activity in the phosphate mines at this place, the phosphate city of Tennessee, continues even greater than heretofore. Owing to the inability of the Louisville & Nashville Railroad to furnish the necessary cars, the shipment for the past few weeks has been comparatively light, and as a consequence there are thousands of tons stored in dry-kilns ready for market. The question of cars is now becoming a serious one, and many of the companies are to a great extent handicapped on this account. However, the railroad officials are making every effort to relieve the situation.

Several sales of phosphate lands have been recorded during the last few days, the principal one being the J. K. Orr place of 305 acres, sold to H. M. Soria and others of New Orleans for \$75,000. Of this, Mr. Orr received \$60,000, while the Mt. Pleasant Real Estate Co. received \$15,000 for manipulating the deal. Other large sales are on, which will doubtless be closed during the coming week.

A new company with a capital of \$60,000, known as the Ridley Phosphate Co., has been incorporated, and will mine the property of Webb Ridley, one mile north of the city. Spur tracks will be put in from the main line of the N. F. & S. R. R. to the mines, a number of drying sheds will be erected and it is probable that a crushing and washing plant will be built in the spring. This means the addition of nearly 1000 hands to the already large number here, besides an increase of several thousand dollars to the weekly payroll, which already passes the \$50,000 mark.

The American Phosphate Co. has recently purchased some valuable phosphate tracts around Mt. Pleasant. Altogether this company has expended fully \$375,000 for phosphate lands in Maury county, the majority of which is located in the Scott's Mill vicinity, a few miles east of Mt. Pleasant. A \$75,000 plant, with the latest and best improved machinery, is being erected by the company, and will be in full operation in a few weeks.

The grading and building of the Mt. Pleasant Southern Railway goes rapidly on, and six or eight miles of the road is completed. This new road will extend from Mt. Pleasant out through the eastern section, which is considered the richest part of the Tennessee field, to Southport. It is generally understood that this road will later be extended through Giles county and into Alabama to Huntsville.

Spur tracks, sidings, drying sheds, etc., are being constructed by the Jackson Phosphate Co. on its properties south of the city. This company is now working a large crew of men, and is mining a great deal of high-grade rock.

The Bluegrass and Columbian phosphate companies and the Petrified Bone Mining Co., all of which are operating under the same management, are erecting a handsome office building on one of the principal streets of the city for their own use.

The phosphate men here are very much encouraged over the prospects for the new railroad, the Mt. Pleasant, Tennessee River & Milan. The incorporators have been over the proposed route, and find that the rights of way will readily be given, while the city will give a site for a depot and track-yard.

The time is fast coming when the en-

tire output from the Mt. Pleasant phosphate mines will be exported.

The phosphates around Carter's Creek and Spring Hill, north of Mt. Pleasant, are being developed, and some large sales are being made in those sections.

A stock company has recently been organized here for the purpose of erecting an ice factory and cold-storage plant. A site near the railroad has been secured, and the concerns will be operating early in the spring. A steam laundry is also to be established here soon.

Mr. Herman D. Ruhm, general manager of the American Phosphate Co., is erecting a handsome three-story hotel, which will be fitted out in the most improved style, with electric-light plant, elevators, etc. There are at present from 500 to 800 dwellings in course of erection around town. New families are moving in as fast as the houses are ready for them, and the population is rapidly increasing.

Early in the spring the Commercial Club of this city will hold a phosphate exposition, at which time it is expected to bring together the principal phosphate miners of the United States. One of the attractive features of the exposition will be a miners' parade, in which from 10,000 to 20,000 miners will be in line.

**Phosphate Markets.**Office Manufacturers' Record,  
Baltimore, Md., November 23.

In all lines of the trade in phosphate rock there seems to be an improvement. As in other fertilizer ingredients, the demand is improving, with corresponding firmness in values. Sales of Tennessee, Florida and South Carolina rock during the past week all show a good margin of profit. At all points of production there is unusual activity among miners. In South Carolina values are very steady, with a good domestic and foreign demand. Crude rock is quoted \$4.25 to \$4.50, and hot-air-dried \$4.50 to \$5 f. o. b. vessel Ashley river. The Florida miners are very busy, and are making some heavy shipments from the ports to Europe. Prices of Florida rock continue firm, with land pebble \$5 to \$5.50 and high-grade rock \$9.50 to \$10 f. o. b. Fernandina. In Tennessee the various mining companies are pushing vigorously the work of development, and the activity around Mt. Pleasant and other sections of the Tennessee phosphate field is most remarkable. It is stated that there is probably more rock in store ready for shipment than ever before in the history of the industry in that section. One company alone has over 25,000 tons in store, and it is expected that shipments for the next three months will be the heaviest known. Prices continue firm at \$2.90 for 75 per cent. rock and \$4 to \$4.50 for 78 to 80 per cent. rock. The only charter reported for the week was that of three British steamers, 1166 tons, 1201 tons and 1267 tons, from a Southern port to the United Kingdom or Continent with phosphate rock on private terms.

**Fertilizer Ingredients.**

The market for leading ammoniates is fairly active, and values firmer, with an upward tendency. Stocks in the West are light, and values are well maintained. There is a fair demand from Eastern buyers, and also considerable inquiry from the South. Nitrate of soda is stronger, both for near and distant deliveries.

The following table represents the prices current at this date:

Sulphate of ammonia (gas).....	\$2.85	@ 2.90
Nitrate of soda.....	1.70	@ 1.72½
Blood.....	2.00	@ 2.02½
Hoof meal.....	1.67½	@ 1.70
Azotine (beef).....	1.90	@ 1.95
Azotine (pork).....	1.90	@ 1.95
Tankage (concentrated).....	1.72½	@ 1.75
Tankage (9 and 20).....	1.82½	& 10@1.85 & 10
Tankage (7 and 20).....	17.00	@ 17.50
Fish (dry).....	20.00	@ —
Fish (acid).....	12.00	@ —

**Phosphate and Fertilizer Notes.**

The shipments of Tennessee phosphate rock from the port of Pensacola for the week ending the 18th inst. amounted to 2515 tons.

The steamship Darlington cleared from Pensacola last week with 2510 tons of Tennessee phosphate rock and other cargo for Havre, France.

The fertilizer plant of E. O. Painter & Co. of Jacksonville, Fla., was destroyed by fire last week. The loss is estimated at \$20,000, with \$5000 insurance.

The British steamship Roehampton cleared last week from Fernandina for Kastrup, Denmark, with a cargo of 2700 tons of phosphate rock for J. Buttgenbach & Co.

The Pickney Mining Co. of Nashville, Tenn., was chartered last week, with a capital stock of \$50,000. The incorporators are A. A. Robins, Vance G. McCormick, Hill Eakin, Dornil King and G. F. Hughes.

The Ridley Phosphate Co. of Maury county, Tennessee, was incorporated last week, with a capital stock of \$60,000. The incorporators are W. P. Ridley, Webb Ridley, E. S. Armstrong, W. M. Chairs and E. E. Hunter.

The New York Kaolin Co., recently incorporated with a capital stock of \$500,000, has secured control of a large deposit of kaolin in Florida, and tests show that the American deposit is quite as rich as that of France and England. The capital stock will be divided into \$100,000 preferred stock and \$400,000 common stock.

The Virginia-Carolina Chemical Co. of Richmond, Va., secured on the 17th inst. the plant of the Commercial Guano Co. of Columbus, Ga. The price paid is said to be \$10,000 and other valuable considerations. It is also stated that the Virginia-Carolina Company has just purchased for \$20,000 a very valuable property in Maury county, Tennessee, said to be very rich in phosphate rock of a high grade.

**Commercial Chemicals.**

The Commercial Chemical Co. of Baltimore, successor to Messrs. Slingluff & Co., has arranged with the Thomsen Chemical Co. of Baltimore to manufacture and market the acid phosphate for baking powder previously made by this well-known firm. Referring to this announcement, the Thomsen Chemical Co. has issued the following circular:

"Referring to the accompanying circular-letter, issued by the Commercial Chemical Co. of Baltimore, successors to Messrs. Slingluff & Co., and our arrangements for the future manufacture and marketing of acid phosphate for baking powder, we take this opportunity of informing the trade and others interested that, in addition to the invaluable knowledge accumulated through years of practical experience by Messrs. Slingluff & Co., there will be added the chemical skill for which our establishment is noted, together with the most modern methods of production available in our extensive works.

"We give notice to our customers now that we shall produce the highest grade of this article, always observing purity and uniformity, and shall maintain a position in regard to its production in this country that will enable us, as the foremost makers, to give our permanent customers many advantages.

"In future "Slingluff's acid phosphate" will be known as "Thomsen's acid phosphate." This product is now being extensively used by bakers throughout the country, and its merits are to be found in its purity and complete freedom from all deleterious substances. While it is

used in the same proportion as cream of tartar, its leavening power is greater, by reason of its more thorough decomposition of the bicarbonate of soda. It keeps cakes and biscuits fresh and moist for a much longer period than any other leavening agent known, besides imparting a natural and pleasant flavor.

"In addition to these properties it increases nutrition by restoring to the flour the phosphates destroyed in the process of milling. Our acid phosphate, in combination with bicarbonate of soda, forms a baking powder that has met with the approval and received the indorsement of scientists and every health board in the country. From an economical standpoint the difference in price of acid phosphate and cream of tartar or tartaric acid is such as to leave no alternative in the adoption of the former."

**Extensive Chemical Works.**

Another important addition to the many industrial plants in the Birmingham (Ala.) district will be that of the Grasselli Chemical Co. of Cleveland, Ohio. This corporation has large chemical works in Ohio, Pennsylvania, New Jersey, New York and Indiana, and the demand for its product in the South and Southwest is the cause of the new plant being decided upon. Mr. E. R. Grasselli has been in Birmingham for the company and purchased last week a tract of land six miles from the city, where it will build the plant, investing several hundred thousand dollars. The chemicals will be sulphuric, hydrochloric and nitric acids.

**TRADE NOTES.**

Justice Cox, Jr., & Co., Ltd.—Messrs. Justice Cox, Jr., & Co., Ltd., succeed Justice Cox, Jr., of 552 Bullitt Building, Philadelphia, Pa. Foreign and domestic ores constitute the firm's merchandise.

Neat Paper-Weight.—A neat desk paper-weight is issued by the Geneva Tool Co. of Geneva, Ohio, consisting of a glass block, the company's business card showing through the glass from the bottom. The Geneva Tool Co. manufactures a general line of hand agricultural tools.

Roberts Electric Supply Co.—The H. C. Roberts Electric Supply Co. has purchased the stock and business of the Franklin Electric Supply House of 506 Cuthbert street, Philadelphia, Pa. The Roberts Company solicits the trade of the Franklin company's customers. Long experience in the electric business enables Mr. Roberts of the new company to supply all orders with promptness and reliability.

Value of Graphite.—The value of graphite has been known for many years, and its use in industrial lines is constantly on the increase. Especially for paint manufacture has this material come to be widely used. The introduction of graphite in the mixing of paints for divers purposes has been the result of experiments and long usage. Many merits has graphite paint, and the Detroit (Mich.) Graphite Co. issues a catalogue of much interest concerning these merits.

Knitting Machinery Offered.—The development of the South's possibilities in the manufacture of textile goods includes the knitting industry. This industry has lately made marked progress in the matter of new mills and enlargements. Sometimes it happens that second-hand machinery for knitting can be used if it is in good operating condition. Messrs. Woodward & Stillman of 16 William street, New York city, are offering at a sacrifice an equipment for knitting flat underwear.

Popular Hose Coupling.—The "Quick-as-Wink" fire hose coupling, manufactured by the W. J. Clark Co. at Salem, Ohio, has made a good record for itself in the five years since it was first introduced. St. Louis, Toledo, Cleveland, Columbus and many smaller cities and towns have had them in use from their first introduction, and are pleased with the way they operate. Columbus has just placed its order for another lot of them. The coupling is said to be more convenient than the common screw coupling, which has been the standard for many years.

# CONSTRUCTION DEPARTMENT.

\*Means machinery, proposals or supplies are wanted, particulars of which will be found under head of "Machinery Wanted."

In correspondence relating to matters reported in this paper, it will be of advantage to all concerned if it is stated that the information was gained from the Manufacturers' Record.

It often occurs that the organization of a new company in a town is not known by the postmaster, and hence letters addressed to the company are returned marked "not known." The Manufacturers' Record reports the first organization of all companies, and our readers, in seeking to get into communication with them, should be very careful in deciding how to address them, and it is often advisable to add the names of one or more incorporators as an aid to the postmaster in delivering mail.

#### ALABAMA.

**Alabama—Ore Mines.**—The Texas Valley Brown Ore Co. has been incorporated at Chattanooga, Tenn., for the development of ore mines in North Alabama, by G. W. Nixon, D. C. Wheeler, Sidney R. Stegall and others; capital stock \$10,000.

**Birmingham—Foundry-supplies Plant.**—The Southern Foundry Supply Co., now in operation, has been incorporated, with G. B. Bates, president; D. W. Nash, vice-president and general manager; R. M. Bates, secretary; company manufactures foundry facings and supplies of all kinds; capital stock \$10,000.

**Birmingham—Gas-retort Works.**—The Birmingham Gas Retort Manufacturing Co. (reported last week as incorporated) will manufacture a gas retort patented by George W. White, which manufactures or generates its own gas from crude coal oil or from kerosene. Address company, care of Caldwell Bradshaw.\*

**Birmingham—Engine Works.**—The Birmingham Machine & Foundry Co. will manufacture blowing engines in connection with its present plant, as reported recently; R. W. Boland, president.

**Birmingham—Chemical Works.**—The Graselli Chemical Co. of Cleveland, Ohio, will, it is reported, erect large chemical works near Birmingham to cost several hundred thousand dollars; site has already been purchased.

**Greenville—Spoke and Handle Factory.**—A company has been organized, with capital stock of \$12,000, for the establishment of a spoke and handle factory.

**Gurley—Handle Factory.**—The Gurley Handle Co. (plant already in operation) has been incorporated, with capital stock of \$20,000; George A. Hibbit, secretary.

**Gurley—Furniture Factory and Planing Mill.**—H. A. Smith has added new machinery in his planing mill and will operate under name of H. A. Smith Planing Co.; next year new machinery will be added for manufacture of furniture.

**Huntsville—Cotton Mills and Knitting Mill.**—T. W. Pratt, Col. W. S. Wells and James R. Boyd are negotiating for sites of fifty acres each for two large cotton mills which will be located in Huntsville; one of these mills will operate 50,000 spindles, the other will be a cotton and knitting mill combined, and will employ 500 operatives. Both industries are rated at \$1,750,000.

**Huntsville—Hardware Factory.**—Capt. E. W. Nixon, president of the Nixon Hardware Co. of Bridgeport, Ala., is investigating with a view of locating factory in Huntsville.

**Huntsville—Cotton-oil Mill.**—T. W. Pratt and J. Coons will erect cottonseed-oil mill, lately reported, in time for next year's crop.

**Huntsville—Hoop Factory.**—S. H. Allen and J. G. Lenard of Petersburg, Tenn., will, it is reported, establish a hoop factory in Huntsville.

**Jenifer—Charcoal Furnaces, etc.**—The new Jenifer Furnace Co., in which W. H. Weller of Gadsden, Ala., and associates are interested, mention of which has been made before, has been formed and transfer of property made; purchasers will operate the furnace (which is a 60-ton plant) with charcoal until coal lands can be purchased and coke ovens erected, when the plant will be enlarged in size and capacity; in addition 10,000 acres of mineral and timber lands have been secured. W. H. Weller of Gadsden, Ala., is president; Fred Hoffman of Milwaukee, Wis., vice-president; John E. Ware, secretary-treasurer.

**Mobile—Hardware Mills.**—The Creelman Export Lumber Co., F. E. Creelman of Cairo, Ill., president, proposes to increase the capacity of its three hardwood mills in the Mobile district.

**New Market—Flour Mill.**—W. P. Miller and J. M. Payne have purchased Dr. McDonle's flour mill, and will improve and operate it.\*

**Uniontown—Cotton Mill.**—R. F. Hall, J. C. Moss, A. C. Davidson, J. H. White, G. B. Johnson, W. J. White and others have incorporated the Ellawhite Cotton Mill, with capital stock of \$100,000, to erect factory.

#### ARKANSAS.

**Boone County—Zinc-land Development.**—W. N. Simms of Harrison, Ark., has sold 230 acres of zinc lands in Boone county to St. Louis capitalists, who will develop extensively.

**Constance—Lumber Company.**—The Drew Lumber Co. has been incorporated, with capital stock of \$75,000, by A. B. Banks, president; E. W. Gates, H. C. Rule and J. C. Northcott.

**Elgin—Woodworking Factory.**—The Gibson Manufacturing Co., reported last week as incorporated, will manufacture hardwoods and wagon-wood stock, succeeding Taylor & Gibson.

**Fort Smith—Chartered.**—The J. Lee Cruce Co., with capital stock of \$10,000, by David Speer, president; J. Lee Cruce, vice-president; John C. Gordon, secretary.

**Hamburg—Stave Factory.**—The Hamburg Stave Co. will increase its capital stock from \$10,000 to \$25,000.

**Nashville—Cyanide Plant, etc.**—The Southern Consolidated Mining & Milling Co., recently organized with Dr. W. A. Borland, president; H. A. Turner, vice-president; A. H. Scoggins, secretary; W. W. Turner, treasurer, and Charles James, manager, and a capital stock of \$1,000,000. Company will develop gold mines in Howard county and build a dam across the Saline river for utilizing the water-power in operating a complete cyanide plant, which will be installed at once.

**Pine Bluff—Ice Factory.**—The William J. Lemp Brewing Co. of St. Louis, Mo., will not erect ice factory in Pine Bluff, as recently reported, but M. Gans & Co., their agents, contemplate engaging in the manufacture of ice.

**Pine Bluff—Ice Factory and Cold-storage Plant.**—E. D. Russell will organize a stock company for the establishment of a 40 or 50-ton ice plant, with cold-storage capacity in connection; \$25,000 has already been subscribed.\*

**Yellville—Zinc Mining.**—H. H. Gansberger, C. J. Wood, J. P. Klein and others, all of Chicago, Ill., have incorporated the Water Creek Zinc Mining Development Co., with capital stock of \$5,000,000.

#### FLORIDA.

**Cedar Keys—Saw-mill.**—Capt. R. A. Ivy has purchased the Eagle pencil property, including buildings, boilers, engines, etc., and will establish a saw-mill.

**Early Bird—Phosphate Plant.**—J. W. Sanders contemplates erecting a new phosphate plant, as reported last week; capacity forty tons per day.\*

**Florida—Kaolin Deposits.**—The New York Kaolin Co., incorporated lately under New Jersey laws, with capital stock of \$500,000, has secured control of large deposits of kaolin in Florida and will develop extensively.

**Gainesville—Starch Factory.**—A Mr. McDonald is investigating with a view of establishing a \$200,000 starch factory in Gainesville.

**Jacksonville—Wharves.**—The Jacksonville & Southwestern Railway Co. is constructing large wharves, which will be extended to twenty feet of water.

**Jacksonville—Ice Factory.**—F. M. Stansbrough, 227 Liberty street, will erect an ice factory.\*

**Juliette—Phosphate Plant.**—H. Y. Hossard is erecting two double-log washers of 100 tons daily capacity each.

**Newberry—Phosphate Plant.**—J. Buttgenbach, recently reported as erecting phosphate plant, is erecting two double-log washers of 100 tons each daily capacity.

**Perry—Brick Works.**—William Wigglesworth will establish brick works.\*

**Phosphoria—Phosphate Plant.**—Louis McLain is erecting phosphate plant.

**Mobile—Light, Heat and Power Plant.**—The Tampa Electric Co. has been incorporated to establish and operate an electric-light, heat and power plant, etc., with Geo. J. Baldwin, president; Peter O. Knight, vice-president; Eliot Wadsworth, secretary and treasurer; capital stock \$500,000.

#### GEORGIA.

**Albany—Knitting Mill.**—W. Harris and L. Zucker have completed arrangements for the establishment of a new knitting mill.

**Atlanta—Manufacturing Enterprise.**—William S. Ansley represents a company that is trying to secure site in Atlanta for the establishment of a \$500,000 manufacturing enterprise.

**Cartersville—Cotton Mill.**—Efforts are being made for the organization of a \$75,000 stock company to erect a 3500-spindle cotton mill. Address A. M. Foute, who is interested.

**Chickamauga—Flour, Lumber, etc., Mills.**—The Chickamauga Manufacturing Co. has been incorporated to manufacture flour, meal, lumber and crates, with capital stock of \$10,000.\*

**Cordele—Log-cart Factory.**—The Gibbs Manufacturing Co., Dwight L. Gibbs, manager, will remove its plant for the manufacture of log carts to Cordele. Address company, care of Board of Trade.

**Dahlonega—Gold Mines.**—The Dahlonega Consolidated Gold Mining Co. denies that it has sold 8000 acres of lands to Eastern capitalists, as recently reported.

**Dupont—Saw-mill.**—A company has been organized, with capital stock of \$75,000, for the establishment of a saw-mill. Names of interested parties will be announced later.

**Guyton—Sugar Refinery.**—The Georgia Manufacturing & Trading Co., recently incorporated, is erecting a refinery with a capacity of nearly 2000 pounds of sugar per day.

**Lawrenceville—Cotton Mill.**—Efforts are being made for the organization of the Gwinnett Cotton Mills, with capital stock of \$70,000, for the erection of a 5000-spindle cotton mill; \$20,000 has already been subscribed. For particulars address L. M. Brand, chairman.\*

**Maysville—Knitting Mill.**—Bacon & Co. contemplate the erection of a knitting mill for hosiery.\*

**Sandersville—Cotton Mill.**—Efforts will be made for the organization of a \$200,000 stock company to establish a cotton mill. Capt. Cuyley Smith of Atlanta, Ga., is interested.

**Thomaston—Cotton and Woolen Mills.**—The company lately reported as to be organized for erection of cotton mill has been incorporated as the Thomaston Cotton Mills, by W. S. Witham of Atlanta, R. A. Matthews, R. E. Hightower, J. R. Lane, I. C. Thompson and others; capital stock is \$70,000, with privilege of increasing to \$500,000.

**Toccoa—Cotton Mill.**—T. A. Capps and associates will erect a \$60,000 cotton mill, as lately reported; will install 5000 spindles and four cone winders, and later on install looms.\*

#### KENTUCKY.

**Dot—Flour Mill.**—Dr. Q. M. Turner and H. E. Orndorff of Schley, Ky., contemplate the erection of a 50-barrel flour mill at Dot.

**Louisville—Bolt and Iron Works.**—The Anderson (Ind.) Bolt & Iron Co. will remove its plant to Louisville and operate under the name of the Louisville Bolt & Iron Co., Incorporated, with capital stock of \$150,000; S. S. Bush, Louisville, president; L. S. Taylor, Anderson, Ind., vice-president and general manager; C. A. Parker, secretary and treasurer. Company will erect new buildings.

**Louisville—Telegraph, etc., System.**—H. P. Bennett of Columbus, Ohio; Charles H. Gibson, Charles Smith and others have incorporated the American District Telegraph Co. of Kentucky, with capital stock of \$150,000, to establish a district messenger service, telephone system and automatic fire-alarm system in Louisville.

**Louisville—Medicine Factory.**—The Louisville Medicine Co. has been incorporated by C. J. Rosenbaum, J. Whittlehofer and Max Wolf; capital stock \$10,000.

**Louisville—Distillery.**—John Cochran & Co. has been incorporated to operate a distillery; Incorporators, J. Rosenbaum, R. G. Shipman, H. F. Spooner, G. H. Westfall, all of New York, N. Y., and others.

**Louisville—Distillery.**—J. Rosenbaum, R. G. Shipman, H. F. Spooner, G. H. Westfall,

all of New York, N. Y., have incorporated the Kentucky Criterion Co. to operate a distillery; capital stock \$7000.

**Louisville—Tobacco Factory.**—The Kentucky Tobacco Product Co. is altering and enlarging one of its warehouses to serve as plant for handling and grinding tobacco stems for fertilizer; approximate cost \$15,000.

**Middlesborough—Coal Mine.**—The Bennett's Fork Coal Co. has been incorporated for the purpose of developing a large coal mine; M. H. Rhorer, president; G. W. Saulsberry, vice-president; George Luke, secretary-treasurer, and Hugh Drummond, general manager.

**Schley—Flour Mill.**—Dr. Q. M. Turner is putting additional new machinery in his flour mill.

**Somerset—Oil Refinery.**—Cincinnati and Eastern capitalists have under consideration the establishment of a \$50,000 oil refinery at Somerset, which will use the product of the Wayne county oil fields. Address J. P. Hornaday, Masonic Building.

#### LOUISIANA.

**Abbeville—Irrigation Canal.**—W. P. Miller, P. L. Webb and others have organized a company to build an irrigation canal of about ten miles.

**Abbeville—Electric-light Plant and Water Works.**—Efforts are being made to secure municipal system of water works and electric lights. Address "The Mayor."

**Abbeville—Irrigation Canal.**—Richard H. Mills, L. P. Remy and others have organized a company to construct an irrigation canal on west side of Bayou Vermilion.

**Abbeville—Rice Mill and Canal.**—R. H. Washburn, C. J. Edwards, N. C. Young and others are organizing a company to build a rice mill and irrigation canal.

**Abbeville—Rice Mill.**—The Abbeville Rice Mill Co. has been organized, with capital stock of \$40,000, for erection of rice mill, by Eli Wise, A. Kaplan, D. M. Hechinger and others.

**Alexandria—Saw and Planing Mill.**—W. D. Green and G. W. Allen of Vincennes, Ind., will establish a saw and planing mill, sash, door and blind factory at the mouth of Bayou Rapids, provided a sufficient sum is raised to dam the bayou.

**Berwick—Blacksmith and Machine Shop.**—Vinson & Petole are building a blacksmith and machine shop.

**New Orleans—Cotton Mill.**—John L. Schroeder, 339 Decatur street, contemplates erecting a yarn and twine cotton mill of 1500 spindles.\*

**New Orleans—Packing Plant.**—The Crescent City Slaughter-House Co., A. B. Blakemore, general manager, will establish a large packing plant.

**New Orleans—Timber Lands, Saw Mills, etc.**—W. S. Robertson, N. W. Murphy, F. W. Breedlove, Thomas J. Clark and others have incorporated, with capital stock of \$15,000, the Crescent Lumber Co., Limited, to develop timber lands, erect saw-mills, etc.

**New Orleans—Hay-baling Plant.**—George A. Lowry, representing the Planters' Compress Co. of Boston, Mass., will, he states in an interview, establish a hay-baling plant in New Orleans. It will be a 10-machine capacity, turning out 150 tons a day.

#### MARYLAND.

**Baltimore—Mercantile.**—The Daniel Miller Co. has been incorporated for conducting dry-goods business (already established) by Theodore K. Miller and others; capital stock \$300,000.

**Baltimore—Dredging.**—F. W. Feldner is president; Edwin Warfield, vice-president, and Allen B. Howard, secretary, of the Maryland Dredging & Contracting Co., reported last week as incorporated; company will complete contract for dredging the channel approaches to Baltimore in the Chesapeake bay and Patapsco river to thirty feet deep and 600 feet wide, awarded last spring to Simon Hess of New York, one of company's incorporators.

**Cumberland—Dry-kiln, etc.**—The Queen City Brick & Tile Co. is making extensive improvements to its works in South Cumberland, including the addition of a large dry-kiln, also dryhouse, as recently reported.

**Cumberland—Brick-kiln.**—The Queen City Brick & Tile Co. is erecting a new kiln of 10,000 brick daily capacity; two additions will be made to the dryhouses, increasing

the daily output by 30,000 and giving capacity of 90,000 brick every twenty-four hours.

**Elkton—Ice Factory.**—Albert Neilson and others are interested in the formation of a \$15,000 stock company to erect a 10-ton ice factory.

**Hagerstown—Engine Plant.**—The Domestic Engine Co. has been organized by Arthur S. Dornblaser and others to manufacture small engines.

**Washington, D. C.—Brick, Tile, etc., Factory.**—The Monroe Bros. Brick Co. has been incorporated for the manufacture of brick, tile and other builders' materials, with C. R. Monroe, president; capital stock \$10,000.

#### MISSISSIPPI.

**Belmont—Educational.**—Chartered: The Belmont High School, with capital stock of \$10,000, by R. L. Shook and others.

**Clarksdale—Electric-light Plant and Water Works.**—The city will issue \$37,000 of bonds for erection of electric-light plant and water works. Address Al. Nachman, city clerk.

**Delta—Cotton Gins.**—The American Ginning Co. of Philadelphia, Thomas W. Prior, vice-president, will build a large plant containing the new Prior roller gins and for handling cotton at Delta; Geo. M. Long and Miles G. Harris, local managers.

**Greenville—Mercantile.**—Chartered: The Greenville Grocery Co., with capital stock of \$3400, by G. M. Urquhart and others.

**Greenville—Sewerage System.**—The city will award contracts next month for the construction of its proposed sewerage system; piping will approximate fifteen miles. Plans and specifications are on view at office of Alexander Potter, engineer, 157 Broadway, New York city; William Yerger, mayor.\*

**Hazlehurst—Electric-light Plant.**—The Hazlehurst Electric Light Co. has been incorporated, with capital stock of \$5000, to erect the electric-light plant previously reported; incorporators, I. N. Ellis, G. I. Ragsdale and others.

**Holly Springs—Laundry.**—The Holly Springs Steam Laundry has been incorporated, with capital stock of \$1800, by F. C. Mattison, W. B. Bradberry and associates.

**Mill View (not a postoffice).**—Chartered: The Richardson-Jourdain Company, with capital stock of \$15,000, by J. S. Richardson and T. N. Jourdain.

**Starkville—Water Works.**—The city will issue \$15,000 of bonds for construction of water works recently mentioned. Address F. L. Wier, mayor.\*

**Terry—Cotton Mill.**—Fred L. Hennington will probably establish a \$50,000 or \$100,000 cotton mill.\*

**Tupelo—Cotton Mill.**—A company will be organized to erect cotton mill, as lately reported. L. D. Hines of Ripley, Miss., will be president and general manager; capital stock will be \$125,000, of which nearly \$100,000 has already been subscribed.

#### MISSOURI.

**California—Hardware Company.**—The R. Kiely Sons Hardware Co. has been incorporated, with capital stock of \$10,000, by Sid Kiely and others.

**California—Flour Mill.**—Kuhlmann & Meyer are erecting building for 200-barrel flour mill; already have machinery for 100-barrel mill.\*

**Joplin—Lead and Zinc Mines.**—The Helen Zinc & Lead Mining Co. has been incorporated, with capital stock of \$200,000, by W. W. Gregg of Joplin, C. W. Somers of Cleveland, Ohio, and others.

**Joplin—Lead and Zinc Mines.**—W. W. Gregg has purchased an interest in a 77-acre tract of lead and zinc lands in Chitwood Hollow from the West Joplin Lead & Zinc Co. for \$4000, and will organize a company for the purpose of erecting a new mill.

**Joplin—Lead and Zinc Mines.**—The Bingo Company has purchased the Van Bibber mine for \$6000; will construct a tramway and develop.

**Joplin—Lead and Zinc Mines.**—James R. Mears, William Mears, Edwin G. Peters of Scranton, Pa., and D. M. Sayers of Joplin have purchased the Tim Malloy mine at Joplin and will erect at once a \$10,000 mill.

**Joplin—Smelting Company.**—The Joplin Independent Smelting Co. has been incorporated, with capital stock of \$50,000, by W. S. Gooding, H. W. Dale and W. A. Gooding.

**Kansas City—Wheel-scraper Factory.**—The Nichol Wheel Scraper Co. of Independence has purchased two-story building for \$3000 and will remove its plant to Kansas City.

**Kansas City—Packing Plant.**—The Jacob Dold Packing Co. will erect \$50,000 building on site of recently burned plant; machinery to be installed will cost \$50,000.

**Kansas City—Brewery.**—George E. Schraubstader of St. Louis, Mo., proposes the organization of a stock company, with capital of \$250,000, for the establishment of a brewery with capacity of 50,000 barrels per year in Kansas City.

**Portageville—Saw-mill.**—The Mills-Ellsworth Co. will establish large saw-mill plant.

**Rocky Comfort—Flour Mill.**—A. F. Shepherd is erecting a 50-barrel flour mill.\*

**Saginaw—Lead and Zinc Mines.**—M. B. Sherboda of Ohio and associates have purchased 180 acres of lands at Saginaw from A. A. Armour and others; will open lead and zinc mines and erect a 75-ton reduction plant.

**Sedalia—Real Estate.**—Chartered: The Rogers Real Estate Co., with capital stock of \$25,000, by James S. Rogers, Lee Montgomery and E. J. Evans.

**Springfield—Mining.**—The Springfield & Granby Mining Co. has been incorporated, with capital stock of \$21,000, by Frank R. Massey, Thomas W. Keet, Milton C. Baker and others.

**St. Louis—Gas Company.**—The Economic Light & Fuel Co., incorporated with capital stock of \$500,000, will furnish gas for heating and illuminating purposes; gas to be used is hydro-carburetted air, generated by small plant, which will be installed upon the premises of each consumer.

**St. Louis—Shoe Company.**—Chartered: The Goodfellow Shoe Co. has been incorporated by P. A. Wilson, H. B. Goodfellow, M. V. Wilson and others; capital \$200,000.

**St. Louis—Copper Mining.**—The Meyer Copper Mining & Smelting Co. has been incorporated, with capital stock of \$5000, by Henry Brinkmeyer, H. H. Ebemeyer, F. Tangen and others.

**St. Louis—Mercantile.**—Chartered: The Mercantile Trust Co., with capital stock of \$3,000,000, by James Campbell, Valle Reyburn, Festus J. Wade and others.

**St. Louis—Lead and Zinc Mines.**—The Reindeer Mining Co. has been incorporated, with capital stock of \$15,000, by A. J. Isch, R. McConnell, C. P. Woodruff and others.

**St. Louis—Towing Company.**—The Kavanaugh & Lockwood Towing Co. has been incorporated, with capital stock of \$50,000, by William K. Kavanaugh, James Y. Lockwood and others.

#### NORTH CAROLINA.

**Albemarle—Cotton Mills.**—The Wiscosett Mills Co. will erect a 300-foot addition and increase the capacity of its mill; present equipment 15,000 spindles and thirty-eight cards.

**Charlotte—Water-power-Electrical Developments.**—The water-power-electrical developments mentioned last week are said to have for their principal promoter L. L. Powell of Roanoke, Va., and it is further stated that Messrs. Decker & Mason of New York are interested. S. T. Stowe, a Charlotte engineer, was making surveys for the parties last week. Address Mr. Powell.

**Cherokee County—Talc Mines.**—The United Mining & Manufacturing Co., reported last week as incorporated, has George J. Records as president; Dr. Frederick C. Jewett, vice-president; Alfred S. Emerson, general manager, and John C. Beck, secretary-treasurer, all of Baltimore. Address company, care of Morrill N. Packard, 22 East Lexington street, Baltimore, Md.

**Concord—Cotton Mill.**—The Gibson Mill, previously reported as incorporated with Robert E. Gibson, secretary-treasurer, and capital stock of \$100,000, has decided to make the capital \$200,000, as nearly \$150,000 has been subscribed; thirty acres for site has been purchased.

**Conover—Buggy Factory.**—A company with capital stock of \$4000, with privilege of increasing to \$100,000, will be organized for establishment of buggy factory. For particulars address Jerome Bolick.

**Corapeake—Saw-mill.**—Clarence Holland and Edward F. Nottingham of Eastville, Va., have purchased and will operate saw-mill at Corapeake.

**Davidson—Cotton Mill.**—The Linden Manufacturing Co. will install new machinery, including 2000 spindles; present equipment 3744 spindles.

**Durham—Bayonet, etc., Factory.**—Julian S. Carr, William A. Guthrie and John C. Michie have incorporated the Michie Bayonet-Shovel Co. to manufacture entrenching tools. The capital stock is \$25,000.

**Fairview—Coal Mine.**—Messrs. Calloway of Atlanta, Ga., and the Wander Water Co. of Cedartown, Ga., will develop coal mine at Fairview.

**Gastonia—Cotton Mills.**—G. W. Ragan, secretary-treasurer of the Trenton Cotton Mills, will probably organize a company and build a new mill in the near future.

**Gastonia—Electric Plant, Water Works, etc.**—An ordinance has been passed authorizing the issuance of \$25,000 of bonds for erection of electric-light plant and \$65,000 for construction of water works and sewerage system; these improvements previously mentioned. Address "The Mayor."

**Hertford—Buggy, Harness, etc., Factory.**—Zachariah Toms, Sidney McMullan and John R. McMullan have incorporated the Toms & McMullan Carriage Manufacturing Co., with capital stock of \$3750, to manufacture buggies, harness, carts, wagons, succeeding the established firm of Toms & McMullan. Company will at the beginning of the year double its capacity. Address Sidney McMullan.\*

**High Point—Chair Factory.**—The High Point Chair Co. has been incorporated, with capital stock of \$3000, by Elmira J. Ingram, Benjamin Best, Joseph Best and others to establish chair factory.

**Lincolnton—Cotton Mill.**—The Elm Grove Cotton Mills is installing \$30,000 worth of new spinning machinery for making fine yarns.

**New Berne—Cotton Mill.**—William Dunn, C. D. Bradham, P. H. Pelletier, S. K. Eaton, A. H. Baufert, Charles S. Hollister and others have incorporated the Pembroke Manufacturing Co., with capital stock of \$75,000, to build cotton mill.

**Raleigh—Knitting Mill.**—Samuel Winters, owner of the West Shore Knitting Mill of Amsterdam, N. Y., has written the Chamber of Commerce that he contemplates the removal of his mill to the South. The mill has forty-five knitters and fifty sewing machines.

**Statesville—Tannery.**—The Flanigan Harness Co. will erect a steam laundry.

**Sunshine—Flour Mill.**—M. C. Buffaloe contemplates establishing a flour mill.\*

**Wilmington—Canning Factory.**—M. Cronly, care of Murchison National Bank, P. O. Box 256, contemplates establishing a canning factory.\*

#### SOUTH CAROLINA.

**Aiken—Laundry.**—The Aiken Trust Co. has erected a building 20x100 feet, which will be occupied as a steam laundry by C. S. Chambers of Pittsburg, Pa.

**Anderson—Cotton Mill.**—The Cox Manufacturing Co., reported several months ago as incorporated, will erect a 6000-spindle cotton mill, and has awarded contract for buildings to C. M. Guest.

**Barnwell—Telephone Exchange.**—The Southern Telephone & Telegraph Co. is placing an exchange in Barnwell, in addition to its long-distance line, and will soon have connection with the American Telephone & Telegraph Co.; S. H. Brown, president.\*

**Batesburg—Cotton Mill.**—W. P. Roof of Lexington, Allen Jones of Columbia and Drewry & Foster of New York have purchased the Batesburg Cotton Mill; will install new and improved machinery and operate it.

**Charleston—Hardwood Factory.**—Crane & McMahon of No. 18 South street, New York, have purchased the hardwood works on Southern wharf at Charleston and will enlarge, operating as the Carolina Hardwood & Shuttle Co., manufacturing shuttles, hubs, spokes and rims.

**Columbia—Telephone System.**—The South Carolina Telephone Co., recently incorporated, will begin at once the construction of its plant; Jerome Bradley is vice-president.

**Dillon—Cotton Mill.**—Efforts are being made for the organization of a stock company to erect a 10,000-spindle and 170-loom cotton mill. Address for particulars T. B. Stackhouse.

**Duncans—Cotton Mill, etc.**—A. B. Groce has purchased the Van Patton shoals, as reported lately, with the intention of erecting a cotton mill. About 2500 horse-power will be available.

**Greenville—Cotton Mill.**—The Quintin Mills, recently reported as organized, has changed its name to the Brandon Mills; J. L. Westervelt is president and treasurer; Frank Hammond, vice-president, and W. B. Smith of Greers, S. C., secretary. This company contemplates a 10,000 or 12,000-spindle and 300-loom factory; orders for machinery have been placed. Address the president.

**Jonesville—Cotton Mill.**—The \$100,000 company lately reported to be organized by W. J. Littlejohn and others for erection of cotton mill has been incorporated as the Jonesville Cotton Mills.

**Laurens—Pants and Overall Factory.**—T. K. Hudgens and associates will establish a pants and overall factory.\*

**Pelzer—Broom and Mattress Factory.**—The Dexter Broom & Mattress Co. has increased its capital stock from \$5000 to \$10,000.\*

**Rock Hill—Supply Company.**—The Rock Hill Supply Co. has been incorporated, with

capital stock of \$20,000, by T. O. Flowers, J. S. White and John W. O'Neal.

**Union—Cotton Mill.**—John A. Fant is organizing a \$200,000 company for erection of cotton mill.

#### TENNESSEE.

**Anderson County—The Minersville Coal Co.** will be incorporated, with B. A. Jenkins of Knoxville, Tenn., president, and J. M. Davis of Minersville, Pa., manager, for the development of coal lands in Anderson county, where a new mining town to be called Minersville will be established; capital stock \$50,000.

**Bigbyville—Phosphate Mine.**—Robert Maxwell, representing a company, is developing a phosphate mine at Bigbyville on property of Egbert and Chas. Wright.

**Chattanooga—Grain Company.**—F. F. Wallace, J. B. Whitehead, R. W. Rees and others have incorporated the Southern Grain Co., with capital stock of \$5000.

**Chattanooga—Glass Factory.**—Illinois parties are considering the advisability of establishing a glass factory at Chattanooga, and are in correspondence with Capt. B. L. Goulding.

**Chattanooga—Iron Furnace.**—It is reported that Richmond (Va.) capitalists will erect a new iron furnace at Chattanooga, near the Chattanooga furnace, in Tannery Flats.

**Chattanooga—Machinery Plant.**—H. L. Pell of Akron, Ohio, will probably establish a plant in Chattanooga for the manufacture of all kinds of machinery.

**Chattanooga—Lumber Mills.**—Snodgrass & Field will erect a \$1500 addition to their lumber mills.

**Cleveland—Road Construction.**—Bradley county has awarded contract to John K. Wilson of Merchantville, N. J., at about \$106,000, for the construction of ninety-five miles of modern roads; present address of Mr. Wilson is Cleveland.

**Gallatin—Water Works.**—A system of water works will be constructed. Address E. O. Buchanan, secretary water-works committee.\*

**Granville—Flour Mill.**—The Granville Roller Mills, Lee & Burton, proprietors, will install roller corn mill and change their bolting to sieve system and otherwise improve the plant.

**Harriman—Iron Works.**—The Knoxville (Tenn.) Iron Co. is erecting new buildings, and will install new machinery at its Harriman plant, as reported recently.\*

**McMinnville—Woolen Mill.**—Burroughs & Taylor Co. is rebuilding its picker-house and dyehouse, recently burned.

**Mt. Pleasant—Phosphate Company.**—Chartered: The Ridley Phosphate Co., with capital stock of \$60,000, by W. P. Ridley, E. S. Armstrong, W. M. Chairs and others, to develop phosphate property near Mt. Pleasant.

**Nashville—Shoe Factory.**—The Richardson Bros. Shoe Co., reported last week as incorporated, will succeed Richardson Bros. & Co., already established; capacity of plant will be increased, but plans are not fully matured.

**Nashville—Chartered.**—The Vauxhall Co., by E. B. Stahlman, O. F. Noel, William Liederer and others; capital stock \$50,000.

**Petros—Coal Mines.**—The Carbon Hill Co. has been organized, with capital stock of \$15,000, by Morgan Llewellyn, L. W. Llewellyn, R. W. Barr, C. H. Raht and Frank Spurlock, for the development of coal properties near Petros.

**Rockford—Cotton Mill.**—The McElwee Co., reported several weeks ago under Maryville, Tenn., as incorporated, will operate an established plant, the Rockford Cotton Mill.

**South Pittsburg—Land Improvement.**—The South Pittsburg Land Improvement Co. has been incorporated, with capital stock of \$12,000, by J. L. Valentino, H. Sperry, E. B. Stahlman, all of Nashville, Tenn., and others.

#### TEXAS.

**Beaumont—Road Improvements.**—The county will hold an election on January 9, 1900, to consider the issuance of \$50,000 of bonds for road improvements. Address "County Clerk."

**Call—Saw-mill and Dry-kiln.**—Geo. Adams will rebuild his saw-mill and dry-kiln, recently reported burned; mill will be two stories, 55x250 feet; contract for machinery awarded.

**Corbet—Cotton Gin.**—Frank Ryan will rebuild his cotton gin, recently burned.

**Corsicana—Cotton Mill.**—George T. Jester, Fred Fleming, J. E. Whiteselle, Scales T. Temperton and others will organize a stock company for the erection of cotton mill.

**Corsicana—Oil Wells.**—T. C. Stribley is

developing oil on his property, as recently reported; capacity of wells about 100 barrels per day.\*

**Dallas—Orchard and Nursery Company.**—J. B. Adams, J. D. Estes, E. B. Bedford and M. W. Needham have incorporated the Johnson Orchard & Nursery Co., with capital stock of \$10,000.

**Eagle Lake—Canal.**—Vineyard, Walker & Co. will build a canal from the Colorado river to their tract of prairie land, and will plant about 1500 acres of rice.

**Elkhart—Improvement Company.**—The Elkhart Mineral Wells & Improvement Co. has been incorporated, with capital stock of \$15,000, by John N. Daly, John R. Hearne, P. H. Hughes and others.

**Fort Worth—Suspender, Belt, etc., Factory.**—The Evans & Simms Manufacturing Co. (recently incorporated) will establish a plant to manufacture suspenders, belts and leather novelties generally; capacity to be 100 dozen suspenders per day; J. A. T. Evans, secretary-treasurer.

**Gainesville—Cotton Mill.**—Efforts are being made for the erection of a \$50,000 cotton mill, and correspondence from interested parties is solicited. Address J. W. Blanton, secretary Citizens' Business League.

**Gainesville—Mattress Factory.**—A mattress factory to cost \$5000 will be erected. Correspondence from interested parties is solicited. Address J. W. Blanton, secretary Citizens' Business League.

**Georgetown—Broom Factory.**—The Texas Broom Manufacturing Co. has been incorporated, with capital stock of \$10,000, by Jack Steele, W. H. Steele and L. S. Landrum.

**Henderson—Cotton Mill.**—A stock company with capital of \$100,000 will be organized for establishment of cotton mill. Address Judge W. J. Graham or Samuel Patton for particulars.

**Houston—Hay-baling Plant.**—George A. Lowry, representing the Planters' Compress Co. of Boston, Mass., will, so he is reported as saying, establish a hay-baling plant of five machines in Houston.

**Houston—Manufacturing.**—Chartered: The Teichman Manufacturing Co. has been incorporated, with capital stock of \$20,000, by A. Teichman, D. A. Hagerman and W. V. Angle.

**Houston—Rice Mill.**—The Houston Mill & Elevator Co. will establish a rice mill.

**Port Arthur—Irrigation System.**—The Port Arthur Rice & Irrigation Co. has increased its capital from \$100,000 to \$150,000, and not from \$1,000,000 to \$1,500,000, as recently reported; F. M. Hammon, Nederland, Texas, manager.\*

**Temple—Flour Mill and Grain Elevator.**—The Board of Trade has completed a deal with Christian & Browning of Valley Mills, Texas, to build in Temple a flour mill and elevator; mill to be 100 barrels daily capacity of flour and meal each; mill and elevator will cost about \$20,000.

**Temple—Ice and Cold-storage Plant.**—The Temple Cold-Storage & Ice Co. will expend about \$40,000 in doubling the capacity of its plant.

#### VIRGINIA.

**Bristol—Soda-fiber Mill.**—The Columbia Paper Co., E. L. Embree, treasurer, Buena Vista, Va., lately reported to erect large soda-fiber mill in Bristol, will commence work November 27; the main building will be over 150 yards long and from 100 to 162 feet wide; boiler-rooms will be 42x182 feet; eight digesters will be installed in a building 82x77 feet and seventy-five feet high.

**Charlottesville—Printing and Publishing.**—The Michie Company has been incorporated, with capital stock of \$100,000, by T. J. Michie of Northport, L. I.; E. W. De Bower of Madison, Wis.; G. R. B. Michie of Charlottesville and others.

**Christiansburg—Paving.**—The city contemplates paving sidewalks with vitrified brick. Address "The Mayor."

**Coeburn—Coal Lands.**—George L. Carter of Bristol, Tenn., has purchased from the Dunn Coal Co. 3500 acres of coal lands near Coeburn for \$25,000.

**Coolwell—Flour Mill.**—W. J. Cash & Son contemplate remodeling their mill and increasing capacity to forty or fifty barrels per day; new system of bolting, another stand of rolls and a 17-foot (four-foot bucket) steel overshot water wheel will be installed.\*

**Danville—Mercantile.**—Chartered: The T. M. Williamson & Co., by T. M. Williamson, E. C. James, H. H. Holland and others; capital stock \$5000.

**Danville—Cheroot Factory.**—The American Tobacco Co. of New York contemplates establishing a cheroot factory in Danville.

**Galt's Mills—Flour Mill.**—E. J. Turner will remodel and increase capacity of his mill.\*

**Hillsville—Telephone System.**—The Wood-

lawn Telephone Co. has been incorporated for construction of system from Hillsville to Oldtown, and to Coal Creek, Va.; authorized capital \$2000.

**Lahore—Flour Mill.**—Joseph Mathews of Madison, Va., has purchased C. R. Mason's flour mill at Lahore and will remodel to roller system.

**Lowesville—Flour Mill.**—Dr. J. B. Woodson has purchased W. C. Miller's buhr mill and will install roller machinery.\*

**Newport News—Cotton Mill.**—It is reported that Collis P. Huntington, 23 Broad street, New York, N. Y., contemplates the establishment of a cotton mill at Newport News.

**Norfolk—Electric-light Plant.**—The Norfolk Electric Co., consisting of Norfolk and Philadelphia capitalists, who propose to establish a large electric plant at Norfolk, has been incorporated, with a minimum capital of \$25,000 and a maximum capital of \$300,000. A. P. Warrington of Norfolk is president.

**Norfolk—Chartered:** The Crystal Catering Co., with capital from \$1000 to \$5000; R. W. McDonald, president.

**Norfolk—Picture-frame Factory.**—S. I. Nusbaum and M. G. Nusbaum will establish a picture-frame factory; machinery all purchased.

**Norfolk—Smelting Plant.**—Eustice Smelting Works, W. E. C. Eustice of Baltimore, Md., proprietor, will double the capacity of its plant, which is at present 100 tons per day

**Petersburg—Street Paving.**—The city will probably expend \$75,000 in paving streets with asphalt. Address "The Mayor."

**Petersburg—Car Shed, Corn and Flour Mill.**—The Southside Railway & Development Co. has purchased the water-power and leased the corn and flour mill of the Upper Appomattox Canal Co., and is having erected a fireproof car shed to cost \$30,000.

**Pleasant Valley—Flour Mill.**—Whit Carpenter has contracted for a 50-barrel flour mill.

**Portsmouth—Bagging, Ties, etc., Company.**—Margollie Bros. have organized to deal in second-hand bagging, ties and burlap from cotton mills; P. O. Box 58.

**Richmond—Gas-lighting Plant.**—The appropriation of \$21,500 by the city for the rehabilitation of its municipal gas-lighting plant (lately mentioned) has not been made, but is pending before the city council; Ben T. August, city clerk.

**Smithfield—Telephone System.**—The Isle of Wight Telephone & Telegraph Co. will ask for right to increase capital to \$25,000; is now building a metallic copper circuit to Norfolk. Address J. W. Holloway.

**Suffolk—Marl Deposits.**—The American Cement Co., recently incorporated, has purchased property in Nansemond and Isle of Wight counties for \$44,000 from Harry B. Warner of Philadelphia; most of the property contains marl beds, which will be utilized in making cement.

**West Norfolk—Barrel, etc., Factory.**—The Tighman Lumber Co. is rebuilding its truck-package factory, as reported last week under Norfolk; daily capacity will be 3000 barrels and 2000 large-size truck baskets per day.

**Winchester—Cabinet Factory.**—G. W. Maddox, H. Shockley, H. H. Baker and others have incorporated the Lace Display Case Co. to manufacture cabinets for displaying ribbons, laces, etc.; capital stock \$5000.

**Yorktown—Telephone and Telegraph Company.**—The Chesapeake Telephone & Telegraph Co. has been incorporated to construct and maintain twenty-seven miles of telephone and telegraph lines to cost about \$1400, by E. E. Slight, B. F. Crockett, E. S. Moore of Crab Neck, T. T. Hudegons of Yorktown and others; capital stock \$20,000. Address T. T. Hudegons.\*

#### WEST VIRGINIA.

**Charleston—Novelty Works.**—The Southland Novelty Co. has been incorporated for the manufacture of novelties; authorized capital \$20,000; incorporators, Samuel R. Southland and others, all of Columbus, Ohio.

**Charleston—Manufacturing.**—B. B. Hall, G. O. Chilton, R. T. Wilson and others have incorporated the Fosburg Pulley Lacing Co. for the manufacture of a patent pulley lacing invention; authorized capital \$5,000,000.

**Charleston—Coal Mines.**—The Alexander Coal Co. has been incorporated, with capital stock of \$50,000, by Richard W. and William F. Alexander of Charlestown, Charles B. Alexander of Parkersburg, Thomas M. Gathright and Edward L. Caldwell of Monongah.

**Confluence—Flour Mill.**—The Vandalia Mills will be removed to Confluence and operated as the Confluence Milling Co.; new machinery will be installed. Address Allen Mollohan.\*

**Elkins—Water Works.**—The city is arranging to open bids for the construction of its

proposed water works, for which bonds amounting to \$30,000 were voted recently. D. G. Adelsberger, 722 Pennsylvania avenue, Baltimore, Md., prepared plans and specifications, which are on exhibition in office of Elkins' mayor, or blue-prints can be obtained of Mr. Adelsberger.\*

**Fairmont—Coal and Coke Company.**—The Columbia Coal & Coke Co. has been incorporated, with an authorized capital of \$100,000, by R. D. Wilson, Sr., R. D. Wilson, Jr., of Cumberland, Md.; Uriah Jones and W. A. Summerville of Frostburg, Md., and John A. Clark of Fairmont.

**Morgantown—Glassware Factory.**—A company with \$30,000 subscribed has been organized by W. H. Bannister, I. C. White, C. R. Huston, E. M. Grant and Joseph McDermott for the establishment of a factory to make glass tableware.

**Morgantown—Glassware Factory.**—The Morgantown Glass Co. has been organized, with W. H. Bannister, president; Joseph H. McDermott, vice-president, and A. W. Lorenz, treasurer, for the establishment of a tableware glass factory; it will be a 12-pot plant; capital stock \$100,000, of which \$50,000 has been subscribed.

**Peterstown—Iron-ore Development.**—Henry C. Byrnside of Greenville has leased iron-ore lands between Peterstown and Lurich, Va., and will develop extensively.

**Princeton—Coal Lands.**—The Hatfield Bend Improvement Co. has been incorporated to purchase coal lands in Mingo county, West Virginia, and elsewhere; authorized capital \$100,000; incorporators, C. R. McNutt, J. P. McNutt, G. B. Sinclair of Princeton and Edgar P. Rucker of Welch.

**Shenandoah Junction—Grain Elevator.**—W. N. Lemen & Co. will rebuild their grain elevator, recently reported burned.

#### BURNED.

**Danville, Va.—E. G. Moseley & Co.'s tobacco factory; Keen Bros.' hogshead factory; tobacco factory of R. J. Coles & Co.**

**Glasgow, Ky.—R. P. Poynter's flour mill and grain elevator; estimated loss \$10,000.**

**Glasgow, Ky.—The Diamond Mills and Elevator; estimated loss \$10,000.**

**Hearne, Texas.—Mrs. H. A. Terrell's cotton gin; loss \$4500.**

**Hillsboro, Texas.—Hillsboro Steam Laundry; estimated loss \$2500.**

**Lafayette, Ga.—J. T. Higgins' gin, saw and grist mill; estimated loss \$3000.**

**Louisville, Ky.—The plant of Frank Raidt Milling Co., 300 East Broadway; estimated loss \$40,000.**

**Lutcher, La.—Dry-kiln of Lutcher-Moore Lumber Co.**

**Thomasville, Ga.—Neverly & Hargraves' planing and lumber mills.**

#### BUILDING NOTES.

**Alpine, Texas—Business Building.**—The W. D. Kincaid Co., lately reported as incorporated, will erect brick business building.

**Atlanta, Ga.—Buildings.**—Sealed proposals will be received until November 30 for construction at Land's End, St. Helena Island, of one set of hospital stewards' quarters, one guardhouse, one commissary and quartermaster's storehouse, for addition to mess building and alteration to hospital, according to plans and specifications. David Price, quartermaster, First Artillery, will supply general instructions to bidders and blank forms of proposals on application.

**Baltimore, Md.—Dwellings.**—Henry and Francis E. Yewell will erect eighty three-story dwellings to cost between \$75,000 and \$100,000.

**Baltimore, Md.—Custom-house.**—Lyman J. Gage, Secretary of the Treasury, Washington, D. C., is asking for competitive designs for the proposed \$1,500,000 custom-house to be erected in Baltimore.

**Blackville, S. C.—Station.**—Frank P. Milburn of Charlotte, N. C., has prepared plans for the Southern Railway Co.'s proposed station at Blackville.

**Bronco, Ga.—Dwellings.**—C. E. Bueck of Chattanooga, Tenn., awarded contract to Willingham & Co. of Chattanooga to erect fifty houses at Bronco.

**Charleston, W. Va.—Hospital.**—Directors of New and Kanawha Rivers Miners' Hospital, to be erected at McKendree, awarded contract for building to W. L. Porter of Montgomery at \$14,414.

**Chattanooga, Tenn.—Business Block.**—Contract has been awarded to Andrews & Breeding to build D. W. A. Shafer's two-story brick business block.

**El Paso, Texas—Buildings.**—J. J. O'Fallon

and the Howard estate of St. Louis, Mo., will erect two three-story brick business houses in El Paso; M. Stein will erect three-story business block.

**Fort Worth, Texas—Stores Building.**—J. M. Moore is erecting two-story brick store building to cost \$11,000.

**Greenville, S. C.—Dwellings.**—J. I. Westervelt, 106 Washington street, president of the Brandon Mills, will consider bids for the erection of fifty tenement-houses for operatives, as per plans and specifications on file in office.

**Harriman, Tenn.—Station.**—The Southern Railway Co. is asking for bids on its proposed passenger station at Harriman. Frank P. Milburn, Charlotte, N. C., made the drawings; F. S. Gannon, manager, Washington, D. C.

**Jackson, Miss.—Courthouse, etc.**—Proposals will be received until December 21 for the construction (except elevator) of the extension of the United States courthouse and postoffice building at Jackson, in accordance with drawings and specifications, copies of which may be had at office of the postmaster in Jackson or at office of Jas. Knox Taylor, supervising architect, Treasury Department, Washington, D. C.

**Kansas City, Mo.—Theater.**—Edward Butler of St. Louis has had plans made by Gunn & Curtis for the erection of a theater building sixty-five feet high in Kansas City. It will be constructed of buff and white brick, and have metal cornices and a seating capacity of 2300. The storage-rooms, boiler-rooms, electric-light plant and other machinery will be in a separate fireproof building. The entire improvements will cost \$100,000.

**Knoxville, Tenn.—Reformatory.**—The board of trustees of the Knox County Industrial School has decided to erect a \$5000 building, to be thoroughly equipped as a reformatory. Address County Judge G. L. Maloney.

**Louisville, Ky.—Distillery.**—R. E. Wathe will organize a company for the erection of a distillery with capacity of 1000 bushels per day.

**Louisville, Ky.—Hotel.**—Muclius Howard and A. G. Corre, president of the Grand Hotel, Cincinnati, Ohio, propose forming a corporation to build a fireproof, 300-room hotel at Grand Lick Springs.

**McColl, S. C.—Hotel.**—T. B. Gibson is erecting a hotel and will install steam or water heating and water-works system, and will receive bids on same. Plans can be seen at office.

**Monroe, N. C.—Church.**—The Methodist congregation will erect a \$10,000 structure; contract to be awarded January 3. Address "The Pastor."

**Morgantown, W. Va.—University Buildings.**—Contract for erection of buildings for West Virginia University, lately reported, awarded to Caldwell & Drake of Parkersburg, W. Va., at \$76,000.

**Rossville, Ga.—Warehouse.**—The Richmond Hosiery Mills awarded contract for erection of a two-story brick and stone warehouse 150x65 feet.

**Trion Factory, Ga.—Warehouse.**—The Trion Manufacturing Co. awarded contract for erection of large brick warehouse.

**Washington, D. C.—Bank Buildings.**—Sketch plans for the proposed Riggs National Bank are still under consideration. The Metropolitan National Bank also contemplates the erection of a new structure.

**Washington, D. C.—Hotel.**—The Virginia Hotel Co., recently incorporated for erection of hotel, is having plans prepared by H. J. Hardinburg, 10 West 23d street, New York, N. Y.; building will be eleven stories, brick, 140x310 feet, and cost \$2,000,000. Jos. E. Willard, Wyatt Building, can be addressed.

#### RAILROAD CONSTRUCTION.

##### Railways.

**Athens, Ga.—J. S. B. Thompson and Albert Howell, Jr., of Atlanta are interested in the Athens Southern Railway Co., which proposes to construct a line between Athens and Lula, a distance of forty miles. The company is capitalized at \$300,000.**

**Belington, W. Va.—The Roaring Creek & Charleston Railroad.**—It is announced, is to be extended in the near future from Belington to Beaver Creek, a distance of eight miles. F. P. Rease at Belington is general superintendent of the company. This branch is being promoted by the Belington & Beaver Creek Railroad Co., referred to in the last issue of the Manufacturers' Record.

**Bowling Green, Mo.—The Minneapolis, Little Rock & Gulf Railroad Co. has been chartered in Missouri and capitalized at \$2,250,000. It proposes building from Bowling Green to West Plains, in Howell county, a distance**

of 225 miles. It is reported that the Chicago & Alton system is interested in the project. Sidney F. Anderson and William S. Bowers of Chicago, also B. A. Goodhue of Rolla, Mo., are among the promoters.

Chesterfield, S. C.—G. J. Redfearn, president of the Chesterfield & Lancaster Railway Co., informs the Manufacturers' Record that it is calculated to build at least twelve miles of its line during the coming year. Chesterfield county has voted an issue of \$50,000 in bonds in aid of the enterprise.

Clarksburg, W. Va.—Messrs. J. C. Carpenter & Co. write the Manufacturers' Record that they have secured contract to build sixteen miles of standard-gauge line to connect with the Chesapeake & Ohio system. Seventy-five-pound rails will be used and three bridges put in. The line is to be completed by July 1 next, and most of the contracts for grading and masonry have been sublet. A New York syndicate is back of the enterprise.

Columbia, S. C.—Grading on the Southern Railway extension between Cayce's Station and Perry has been completed and track laid for a considerable distance. Messrs. Jones & Co. of Baltimore and W. J. Oliver are contractors for the line.

Cuthbert, Ga.—The business men of Cuthbert are negotiating with the Georgia Pine Railway Co. for an extension of the line to Cuthbert. J. P. Williams of Savannah is president of the railroad company.

Danville, Va.—The latest report concerning the Danville & Western Railway is to the effect that it will be changed from narrow to standard gauge between Danville and Leaksville, N. C., a distance of twenty-eight miles. G. K. Griggs at Danville is general superintendent. This road is now in operation as a portion of the Southern system.

Fayetteville, Ark.—The Arkansas Construction Co. of Little Rock has begun work upon the North Arkansas & Western Railroad, which is to be built from Fayetteville to connect with the Kansas City, Pittsburgh & Gulf system. It will be thirty miles in length. W. A. Bright is manager of the company.

Flomaton, Ala.—It is reported that the Central of Georgia Railway Co. has under consideration the plan of extending its line from Columbia to Flomaton by the way of Andulusia. John M. Egan, at Savannah, is vice-president.

Haskell, Texas.—The proposed Colorado, Texas & Mexican Railroad Co. has been chartered to build from Haskell to Llano, a distance of 170 miles, by the way of Abilene, Texas.

Hertford, N. C.—David Cox, engineer of the Elizabeth City & Western Railroad, writes the Manufacturers' Record that surveys have not been completed for this line as yet.

Hookerstown, N. C.—The business men at Hookerstown are agitating the question of building a branch to connect with the Atlantic & North Carolina Railroad.

Houston, Texas.—The charter of the Houston, Brazos & Northern Railroad Co. has been approved by the attorney-general. The company is capitalized at \$5,000,000, and proposes building from Houston through Texas to the line between Texas and the Indian Territory. The estimated length of the road is 400 miles. Walter Gresham and R. B. Hawley of Houston are promoting the road.

Houston, Texas.—John W. Maxey has been appointed engineer for the Houston, Brazos & Northern Railroad Co., recently referred to in the Manufacturers' Record as to build from Houston into the Indian Territory, a distance of about 400 miles. R. M. Hall may be addressed.

Huntington, W. Va.—A report is current that the Columbus, Hocking Valley & Toledo Railroad is to be extended in Ohio to a point opposite Huntington and connected with the Chesapeake & Ohio by a bridge across the river. F. B. Sheldon at Columbus, Ohio, is chief engineer.

Jefferson, Texas.—The Jefferson & Northwestern Railway Co. has been chartered to build the proposed line from Jefferson to a point near Linden, Texas, a distance of twenty miles. Among those interested are F. J. Clark of Jefferson and E. Bancker of Jackson, Mich.

Kansas City, Mo.—Work has begun upon the electric railroad to be built between Kansas City and Topeka, Kans., which Willard E. Winner of Kansas City is promoting.

Lebanon, Mo.—Surveys have recently been made, it is stated, in the interest of the St. Louis & San Francisco Railroad between Lebanon and Osceola, Mo., by way of Buffalo. B. F. Yoakum at St. Louis is general manager of the company.

Little Rock, Ark.—The Choctaw & Memphis Railroad Co. has completed its bridge

across the Arkansas river and connected Little Rock with its main line, which is now in operation to Weatherford, Okla.

Mansfield, Ark.—A report is current that preliminary surveys have recently been made for an extension of the St. Louis & San Francisco Railroad to Hot Springs. B. F. Yoakum at St. Louis is general manager of the company.

Morris Ferry, Ark.—The Little River Valley Railway Co. has completed the surveys for its proposed line from Morris Ferry, in Little River county, to a point in the Indian Territory.

Mt. Pleasant, W. Va.—Right of way is being secured for the proposed electric railway between Mt. Pleasant and Bridgeport.

New Bern, N. C.—It is reported that the \$50,000 appropriated for improvements to the Atlantic & North Carolina Railroad may include the relaying of a portion of the track. The chief engineer may be addressed at New Bern.

New Madrid, Mo.—Seth S. Barnes, president of the St. Louis & Memphis Railway Co., writes the Manufacturers' Record that this line is now being completed for a distance of seventeen miles. Rails have been purchased for three miles additional. The road is to be constructed to a connection with another line entering Memphis, Tenn.

Pidcock, Ga.—C. W. Pidcock, superintendent of the Georgia Northern Railway Co., writes the Manufacturers' Record that the extension from Doe Run to Albany will be twenty-four miles long. It is now under construction and the necessary rails secured.

Richmond, Va.—About half of the proposed Richmond & Tidewater Railroad has been surveyed, and it is calculated to have this portion of the work completed by January 1. C. P. E. Burgwyn is engineer in charge.

Rockland, Texas.—It is stated that the Southern Pacific Railway Co. has contracted with Dodge Mason of Kemp, Texas, to build part of its extension between Rockland and Athens, in Henderson county, Texas. The distance is about 115 miles. W. G. Van Vleck at Houston, Texas, is vice-president of the company.

San Antonio, Texas.—H. M. Aubrey is president of the San Antonio & Brownsville Railroad Co., which proposes building between these towns, a distance of 250 miles. President Aubrey states that work will begin upon the road as soon as the city takes \$100,000 worth of stock in it.

Spartanburg, N. C.—T. L. Dean of Chicago is reported as investigating the plan of building a railroad from Spartanburg to Chester to connect with the Seaboard Air Line, a distance of forty-five miles.

Spartanburg, S. C.—A report is current that James Duncan of Union, S. C., who is interested in the railroad between Carlisle and Spartanburg, is acting in the interest of the Seaboard Air Line, which intends having a branch into Spartanburg by this route. If built the road would be forty miles long.

Stamps, Ark.—Rails have been purchased for the extension of the Arkansas, Louisiana & Southern Railway to Natchez, Miss. The road is now being completed a distance of eighty miles, terminating at a point twenty miles southeast of Minden, La. The extension will be across the State of Louisiana, terminating at the Mississippi river. It is in operation from Stamps to Sibley, a distance of sixty-two miles. F. H. Drake at Minden is president and general manager.

St. Louis, Mo.—The St. Louis County Transit Co., recently organized, includes G. P. Hoffman and John H. Busch. The company proposes building an electric line in the suburbs, and has asked for a franchise.

Wharton, Texas.—The latest report concerning the Missouri, Kansas & Texas Railroad is to the effect that the extension now being built between Sealy and Wharton is to be extended to the Gulf coast, and that surveys are now in progress. The distance is fifty miles. A. A. Allen at Dallas, Texas, is general manager.

Street Railways.

Atlanta, Ga.—The city authorities have given the Atlanta Railway & Power Co. permission to build several extensions in the city. Ernest Woodruff is president of the company.

Columbia, S. C.—It is announced that the Columbia Electric Railway Co. will build several miles of new line in the suburbs, in addition to making improvements to the present system. W. B. Smith Whaley is president of the company.

Macon, Ga.—The North & South Macon Railway Co. has been formed to build the proposed street railway in the suburbs. W. B. Sparks and Hon. H. C. Bacon are promoting the enterprise.

Norfolk, Va.—The Norfolk Street Railway Co. contemplates building an extension of its electric system into the city proper. R. Lancaster Williams at Richmond, Va., is president of the company.

### Machinery, Proposals and Supplies Wanted.

**Manufacturers and others in need of machinery of any kind are requested to consult our advertising columns, and if they cannot find just what they wish, if they will send us particulars as to the kind of machinery needed we will make their wants known free of cost, and in this way secure the attention of machinery manufacturers throughout the country. The MANUFACTURERS' RECORD has received during the week the following particulars as to machinery that is wanted.**

Abattoir Equipment.—A. A. Butler, secretary Knoxville Abattoir Co., Knoxville, Tenn., is in need of sterilizing machinery, engine and press.

Air Compressor.—See "Ice-factory Equipment."

Boiler.—See "Water Works."

Boiler and Engine.—See "Saw-mill."

Boiler and Engine.—See "Phosphate Plant."

Boiler and Engine.—D. S. Hildebrand, Asheville, N. C., wants a second-hand 70 or 80-horse-power boiler and about 50-horse-power engine.

Boilers and Engines.—See "Marine Power Plant."

Boiler Equipment.—See "Condensers."

Box-factory Supplies.—John W. Piver, Pinna, Ga., wants to communicate with manufacturers of automatic box-nailing machinery.

Brick Machinery.—William Wigglesworth, Perry, Fla., wants to correspond with manufacturers of brick machinery.

Broom Machinery.—J. S. Terry, 1906 Seventh avenue, Columbus, Ga., wants to correspond with manufacturers of broom machinery.

Buggy and Wagon Machinery.—Toms & McMullan Carriage Manufacturing Co., Hertford, N. C., will want machinery for manufacture of buggies, wagons, harness, etc.

Canning Factory.—M. Cronly, care of Murphison National Bank, P. O. Box 296, Wilmington, N. C., wants to correspond with manufacturers of canning outfits.

Clothing Factory.—See "Textile Machinery."

Condensers.—Clarke Lumber Co., Orange Mills, Fla., wants information concerning condensers to insure a supply of fresh water for two 40-horse-power boilers to drive a 50-horse-power engine.

Cotton Mill.—Fred L. Hennington, Terry, Miss., is in the market to buy machinery suitable for a \$50,000 or \$100,000 cotton mill.

Cotton Mill.—T. A. Capps, Toccoa, Ga., wants to correspond with manufacturers relative to the establishment of a 5000-spindle cotton mill.

Cotton Mill.—John L. Schroeder, 339 Deaderick street, New Orleans, La., wants to purchase second-hand machinery for 1500-spindle yarn and twine cotton mill.

Cotton Mill.—L. M. Brand, chairman Gwinnett Cotton Mills, Lawrenceville, Ga., wants to correspond with manufacturers relative to the establishment of a 5000-spindle cotton mill.

Crusher.—See "Road Machinery."

Drilling Machinery.—See "Steam Drills."

Electrical Equipment.—Valley Iron Works, Williamsport, Pa., is in the market for dynamo of about 250 to 300 16-candle-power-lamp capacity; will consider both new and second-hand.

Electrical Machinery.—Carson & Co., Riverton, Va., wants a second-hand electrical light dynamo, about 400 candle-power.

Electrical Machinery.—J. W. Pentecost, engineer, Nashville, Tenn., wants bids until December 1 for one 100-horse-power automatic engine, one 120-horse-power tubular boiler and one 60-kilowatt alternating generator; appropriation \$8000; W. G. Shambarger, chairman light committee.

Electric-light and Power Plant.—Chickasha Electric-Light & Power Co., Tom Irving, manager, Chickasha, I. T., wants catalogues of machinery and supplies for electric-light and power plant.

Elevator.—Laurens (S. C.) Laundry Co. wants prices on small elevator.

Elevator.—Dexter Broom & Mattress Co., Pelzer, S. C., is in the market for a freight elevator to run by hand.

Engine.—See "Abattoir Equipment."

Engine.—S. G. Webb Chemical Co., Box 294, Richmond, Va., wants second-hand gasoline engine, eight to twelve horse-power; state make, use, etc.

Engine.—Valley Iron Works, Williamsport, Pa., is in the market for a second-hand throttling engine (complete) of from 250 to 300 horse-power. Send details and price, and state where now in operation or can be seen, together with earliest possible date of delivery.

Excavating Machinery.—Hanover Land & Improvement Co., C. C. Chadbourn, manager, Wilmington, N. C., is in the market for machinery to remove a top surface of sand from over phosphate rock; sand is five to ten feet thick.

Flour Mill.—Dr. J. B. Woodson, Lowesville, Va., will probably purchase roller machinery.

Flour Mill.—W. J. Cash & Son, Coolwell, Va., will want new system of bolting, stand of rolls, a 17-foot (four-foot bucket) steel overshot water wheel.

Flour Mill.—Chickamauga (Ga.) Manufacturing Co. wants machinery for flour mill.

Flour Mill.—A. F. Shepherd, Rock Comfort, Mo., wants to purchase machinery for 50-barrel flour mill.

Flour Mill.—M. C. Buffaloe, Sunshine, N. C., wants addresses of manufacturers of flour-mill machinery.

Flour-mill Machinery.—Kuhlmann & Meyer, California, Mo., will contract for machinery for 100-barrel mill, which will be for both grinding and bolting capacity.

Flour-mill Machinery.—W. P. Miller and J. M. Payne, New Market, Ala., will probably want flour-mill machinery.

Flour-mill Machinery.—E. J. Turner, Galt's Mills, Va., will probably want machinery for enlarging flour mill.

Flour-mill Machinery.—Confluence (W. Va.) Milling Co. will purchase some new machinery. Address Allen Molohan.

Foundry Equipment.—See "Traveling Crane."

Foundry Equipment.—Knoxville (Tenn.) Iron Co. wants bids on two pairs of small shears (new and second-hand) that will cut one and one-half round cold.

Foundry Equipment.—Birmingham (Ala.) Gas Retort Manufacturing Co., care of Caldwell Bradshaw, will need machinery for the manufacture of bolts, nuts and pipe fittings generally.

Garbage Crematories.—Bids will be received until December 1 for the erection of two garbace furnaces, capacity not less than seventy-five cubic yards daily. Bidder must submit plans and specifications of proposed furnace with his bid. Estimates on each furnace to be given separately. Certified check for \$1000 on a Galveston bank must accompany each bid. Address Geo. Q. McCracken, city clerk, Galveston, Texas.

Gas (Acetylene) Machines.—Carson & Co., Riverton, Va., want to communicate with manufacturers of acetylene-lighting machinery suitable for factory.

Gasoline Engine.—See "Engine."

Hardware Manufacturers.—Montezuma (Ga.) Harness Co., W. E. Vance, manager, wants addresses of hardware, etc., manufacturers.

Harness Machinery.—See "Buggy and Wagon Machinery."

Heating Plant.—T. B. Gibson, McColl, S. C., will receive bids on steam or hot water heating apparatus for hotel.

Hoisting Equipment.—See "Phosphate Plant."

Hosiery Manufacturers.—See "Textile Manufacturers."

Ice Factory.—E. D. Russell, Pine Bluff, Ark., wants estimates on a 40 or 50-ton ice plant, with cold-storage apartments.

Ice-factory Equipment.—F. M. Stansbrough, 227 Liberty street, Jacksonville, Fla., wants a second-hand air compressor, belt or steam driven.

Ice Plant.—Shoop-Withers Company, No. 35 East Washington street, Suffolk, Va., wants estimates on ice plant from ten to twenty tons capacity.

Irrigation System.—See "Water-works Machinery."

Iron Bolts.—See "Ironworking Machinery."

Ironworking Machinery.—Geo. M. Henrie, 34 W. Washington street, Chicago, Ill., wants small iron planer and 24-inch iron lathe; must be modern and at low price.

**Ironworking Machinery.**—J. W. Miner, Ronda, N. C., wants quotations on 19x1/4-inch iron bolts, 12x3/4-inch iron bolts, three-quarters-inch strap iron, one 18 or 20-inch second-hand pony planer.

**Ironworking Machinery.**—B. F. Eames, 47 W. Madison street, Chicago, Ill., wants medium-sized second-hand iron planer and 24-inch iron lathe; must be modern, complete and in good condition.

**Knitting Machinery.**—Bacon & Co., Maysville, Ga., want estimates on cost of knitting equipment; also general information concerning knitting mills.

**Laundry Machinery.**—J. Henry Trout, P. O. Box 141, Front Royal, Va., wants to correspond with manufacturers of laundry machinery.

**Machine Tools.**—J. B. Westbrooks Foundry & Machine Co., Danville, Va., wants a second-hand lathe, 36x40-inch swing, and to take six feet between centers.

**Machine Tools.**—Vinson & Petoie, Berwick, La., are in the market for second-hand lathe and planer and boilermakers' tools.

**Marine Power Plant.**—W. E. Edgar, Mobile, Ala., wants steamboat machinery, engine about 8x30, Scotch marine or water-tube boiler.

**Metal-working Machinery.**—Birmingham (Ala.) Gas Retort Manufacturing Co., care of Caldwell Bradshaw, will want machinery for stamping or pressing into shape tinware, galvanized and copper sheets for vessels, tanks, etc.

**Mining Equipment.**—See "Phosphate Plant."

**Nailing Machinery.**—See "Box-factory Supplies."

**Oil Refinery.**—T. C. Stribling, Corsicana, Texas, wants small refinery for handling output of 100 barrels per day.

**Organ (Reed) Supplies.**—J. M. Roberts, Shelby, N. C., wants addresses of manufacturers of reeds, actions, bellows and sounding-boards of organs, without cases.

**Phosphate Plant.**—J. W. Sanders, Early Bird, Fla., will probably want hoisting engine and boiler, 60-horse-power portable boiler, 50-horse-power engine, eight-inch pump, revolving screw and all the fixtures necessary for a 40-ton daily capacity phosphate plant.

**Pumps.**—Port Arthur Rice & Irrigation Co., F. M. Hammon, manager, Nederland, Texas, is negotiating for additional pumping facilities.

**Pumps.**—See "Water-works Machinery."

**Railway Equipment.**—Georgia Northern Railway Co., C. W. Pidcock, general superintendent, Pidcock, Ga., will purchase or lease about twenty-five flat cars.

**Railway Equipment.**—Virginia & Southwestern Railway Co., M. D. Chapman, vice-president and general manager, Bristol, Tenn., is in the market for 500 coal, coke, flat and box cars.

**Road Machinery.**—Roland Park Co., Roland Park, Md., wants to buy small rock crusher.

**Saddle Manufacturers.**—Montezuma (Ga.) Harness Co., W. E. Vance, manager, wants addresses of saddle manufacturers.

**Saw-mill.**—J. H. Mitchell, Opelika, Ala., wants one self-contained plain throttling engine, twenty-five horse-power, and one 30-horse-power tubular boiler complete; also one portable saw-mill suitable for above engine, with fifty intersected tooth saws. Give prices f. o. b. Opelika.

**Sewerage System.**—Bids will be opened December 4 for the construction of sewerage system, pipe-laying approximating fifteen miles of vitrified pipe, varying from four-inch house connections to 20-inch pipe; also manholes, flush tanks and other appurtenances. Plans and specifications can be seen at office of engineer, Alex. Potter, 157 Broadway, New York city. William Yerger, mayor of Greenville, Miss., will open bids.

**Stationery.**—W. W. Edwards, Abbeville, La., wants prices and samples of building and loan stationery, stock certificates, etc.

**Stationery.**—I. Nelson Greene, Abbeville, La., solicits prices and samples of bank stationery and supplies, including stock and deposit certificates.

**Steamboat.**—Pine Bluff Packet Co., Alexander Perdue, president, Pine Bluff, Ark., is negotiating for steamboat suitable for carrying cotton and heavy merchandise.

**Steam Drills.**—Hanover Land & Improvement Co., C. C. Chadbourne, manager, Wilmington, N. C., is in the market for steam drilling machinery.

**Sugar Mill.**—George M. Macy, Orlando, Fla., will need a centrifugal dryer.

**Suspender Supplies.**—Agents' Supply Co., 903 English-American Building, Atlanta, Ga.,

wants to correspond with manufacturers of nickel and metallic trimmings for an all-leather suspender, such as small double-tongued buckles, rivets, eyelets, fastenings, etc.

**Telephone Equipment.**—Chesapeake Telephone & Telegraph Co., care of T. T. Hudgens, Yorktown, Va., wants to correspond with manufacturers of telephone equipment and supplies.

**Telephone Material.**—Southern Telephone & Telegraph Co., S. H. Brown, president, Barnwell, S. C., is in the market for telephone material.

**Textile Machinery.**—T. K. Hudgens, Laurens, S. C., wants prices, etc., on complete plant for manufacturing pants and overalls.

**Textile Manufacturers.**—Weekes Manufacturing Co., Macon, Ga., wants to correspond with manufacturers of hosiery and underwear.

**Throttling Engine.**—See "Engine."

**Throttling Engine.**—See "Saw-mill."

**Tower.**—See "Water Works."

**Traveling Cranes.**—Valley Iron Works, Williamsport, Pa., is in the market for new or second-hand hand-power traveling crane, 16 to 20-foot span, 6000 to 8000 pounds capacity, to be used for core-setting exclusively; also one hand-power traveling crane, 16-foot span, 3000 or 4000 pounds capacity, for coreroom work.

**Underwear Manufacturers.**—See "Textile Manufacturers."

**Water Wheel.**—See "Flour Mill," item of Cash & Son.

**Water Works.**—J. H. Truett, city attorney, Whitehouse, Texas, wants estimates on \$20,000 water-works system.

**Water Works.**—Proposals for constructing a system of water works will be received by water-works committee of Gallatin, Tenn., E. O. Buchanan, secretary, until November 30. For specifications for materials address Walter G. Kirkpatrick, engineer, Jackson, Miss.

**Water Works.**—City of Starkville, Miss., F. L. Wier, mayor, will be in the market for one 80-horse-power water-tube boiler, one 70-foot steel tower and 50,000-gallon tank, one force pump, also eight, six and four-inch water pipe, etc.

**Water Works.**—City of Elkins, W. Va., will open bids December 7 for construction of water works. Amount available for plant is \$30,000. Plans, etc., now on file with mayor, Jas. O. Bent, or blue-prints of drawings, etc., can be obtained of the engineer who prepared plans, D. G. Adelsberger, 722 Pennsylvania avenue, Baltimore, Md.

**Water Works.**—T. B. Gibson, McColl, S. C., will receive bids on complete water-works system for hotel.

**Water-works Machinery.**—C. J. Edwards, Abbeville, La., wants to correspond with manufacturers of water-works machinery, especially the direct system; also irrigation pumps.

**Woodworking Machinery.**—B. & M. L. Co., care Manufacturers' Record, Baltimore, Md., wants a second-hand (Perkins) shingle machine of about 30,000 per day capacity.

**Woodworking Machinery.**—Chickamauga (Ga.) Manufacturing Co. wants to purchase machinery for manufacture of lumber, crates, etc.

## FINANCIAL NEWS.

### New Corporations.

The Bank of Goodman, Miss., has been organized, with \$30,000 capital, by J. M. Powers and others.

It is stated that a new trust company is being formed at Washington, D. C., by Daniel B. Clark, Joseph H. Cranford and others.

The Yazoo Delta Bank has been organized at Moorhead, Miss., and capitalized at \$50,000 by James Robertson and others.

A. W. Truhart and others are interested in the Douglas Land and Investment Association of Hampton, Va., recently formed with \$50,000 capital.

G. H. Green and W. T. Williams of Rock Hill, S. C., are interested in the Real Estate & Investment Co., recently formed at that place with \$10,000 capital stock.

The Mercantile Trust Co., recently formed at St. Louis, has selected its directory. It will absorb the business of the Anderson-Wade Realty Co., in addition

to doing a banking business. Among those interested are Festus J. Wade and James Campbell.

### New Securities.

The city of Owensboro, Ky., has voted in favor of issuing \$200,000 in 4 per cent. bonds for street improvements.

The town of Crystal Springs, Miss., has decided to issue \$25,000 in bonds for improvements. The mayor will give further information.

There is a possibility that the city of Salisbury, N. C., will issue \$25,000 in bonds for improvements. The mayor may be addressed.

The town of Lancaster, Ky., has voted in favor of issuing \$14,000 in bonds for water-works purposes. The mayor will give further details.

Towns county, Georgia, offers for sale an issue of 5 per cent. bonds amounting to about \$6000. J. T. Kimsey may be addressed at Hiawassee, Ga.

Allen county, Kentucky, has voted in favor of issuing \$175,000 worth of 4 per cent. refunding bonds. The county court may be addressed at Scottsville, Ky.

Proposals will be received until December 5 for the issue of \$37,000 in 5 per cent. bonds to be placed on the market by the town of Clarksdale, Miss. A. Nachman may be addressed.

The city of Hagerstown, Md., will sell at public auction on November 28 \$2100 worth of 4 per cent. bonds for improvements. M. R. Hawken may be addressed for further particulars.

The people of Floyd county, Georgia, may vote on the question of issuing \$40,000 in bonds to refund present indebtedness. The county commissioners may be addressed at Rome, Ga.

C. P. Timmons of Philadelphia has purchased an issue of \$12,000 in bonds offered by Accomack county, Virginia, for improvements. The price gives an interest rate of 4.4 per cent. to the purchaser.

Dougherty county, Georgia, will place on the market \$15,000 worth of 4 per cent. bonds. Proposals will be received until December 4. The clerk of the commissioners of roads may be addressed at Albany, Ga.

The board of commissioners of the Iberia drainage district of Louisiana offer for sale \$30,000 worth of 5 per cent. bonds. A. L. Monnot, president of the board, may be addressed at New Orleans until December 1.

Thomas Baird, county treasurer, will receive bids until December 24 for the issue of \$10,000 in bonds offered by Sunflower county, Mississippi. They will bear 5 per cent. interest. He may be addressed at Indianola, Miss.

### Dividends and Interest.

The Dexter Broom & Mattress Co. of Pelzer, S. C., has declared a dividend of 11 per cent.

The City Mills Co. of Columbus, Ga., has declared a semi-annual dividend of 3 per cent. This company manufactures flour and meal.

### Financial Notes.

The Bank of Amite City, La., has elected D. H. Sanders, president; F. C. Weist, vice-president, and D. F. Young, cashier.

The Economy Savings Bank of Baltimore has elected George A. Hartman, president; Joshua Horner, vice-president, and Simon P. Schott, secretary and treasurer.

Mr. J. William Middendorf has been elected temporary president of the Fidelity Fire Insurance Co. of Baltimore, succeeding J. Ramsey Barry, who has resigned. Mr. George R. Webb has been elected vice-president.

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### Personally-Conducted Tours via Pennsylvania Railroad—Season of 1899-1900.

The Pennsylvania Railroad Co. announces the following personally-conducted tours for the season of 1899 and 1900:

Mexico and California.—A 45-day tour will leave Baltimore February 13. Fourteen days will be spent in Mexico and eighteen in California. The party will travel over the entire route by the "Mexico and California Special," the finest train that crosses the continent.

Florida.—Four tours to Jacksonville will leave Baltimore January 23, February